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	Ear. Structure. *See* 611·35.
	Larynx and Voice Production. *See* 612·48.
·6	Physical Basis of Music.
·64	Musical Instruments.
·9	Special Applications.
·91	Phonographs. Gramophones.
·94	Applications to Architecture.
·95	Speaking Tubes.
536	**Light.**
·02	Experimental Treatises.
·1	Geometrical Optics.
·11	Photometry.
·15	Mirrors, Prisms and Lenses.
·16	Making of Mirrors and Lenses.
	Photographic Lenses. *See* 649·45.
	Spectroscopy. *See* 541·68.
·18	Projection Apparatus.
·2	Physical Optics.
·3	Velocity, Wave length, Energy, &c., of Radiation.
·35	Radiation Pressure. Mechanical Equivalent of Light.
.4	Interference and Diffraction.
.45	Optical Instruments.

LIGHT—continued.

536·5 Reflection and Refraction.

Refractive Indices of Liquids. Refractometers. *See* 532·41.

Optical Properties of Crystals. *See* 548·4.

·55 Colour. Absorption of Light.

Colour Vision and Colour Blindness. *See* 612·595.

·6 Polarization.

Polarimeters. *See* 542·43.

Rings and Brushes of Crystals. *See* 548·4.

·7 Spectra. Distribution of Lines. Structure of Spectra. Influence of Magnetic Field.

Spectrum Analysis. *See* 541·68.

·9 Special Applications of Light.

Physiological Optics. Vision. *See* 612·59.

Eye. Structure. *See* 611·35.

537 Heat.

Radiation. *See* 539·2.

·01 Mathematical Theory.

·02 Experimental Treatises.

·025 Sources of Heat.

Methods of producing High, Low and Constant Temperatures. *See* 542·57.

·1 Thermometry.

·11 Expansion and Pressure Thermometry.

·13 Electrical Thermometry.

·15 High Temperature Measurement. Pyrometry.

·17 Low Temperature Measurement.

·2 Calorimetry.

Specific Heats. *See also* 542·54.

Latent Heats. *See also* 542·545.

·4 Thermodynamics.

·41 First Law. Conservation of Energy.

·42 Mechanical Equivalent of Heat.

·43 Second Law. Carnot's Cycle. Entropy.

·45 Thermodynamic Surfaces and Models.

·5 Thermal Conduction and Convection.

Mathematical Theory. *See* 537·01.

·6 Relations between Pressure, Volume and Temperature.

Expansion of Gases. *See* 542·26.

„ Liquids. *See* 542·55.

·65 Expansion of Solids.

·7 Change of State.

·71 Vaporization of Liquids.

Liquefaction of Gases. *See* 542·37.

Boiling Points. *See* 542·51.

·75 Vaporization of Solids. Sublimation

·77 Fusion and Solidification. *See also* 542·53.

Solutions. *See* 542·3.

·9 Special Applications of Heat.

538 Electricity and Magnetism.

·1	Mathematical Theory.
·2	Experimental Electricity. Practical Text Books.
·21	Electric and Magnetic Units. Practical Determinations.
·25	Laboratory Apparatus. Electric Machines.
	Primary Batteries. *See* 631·2.
	Secondary Batteries. *See* 631·19.
	Electromagnets. *See* 631·21.
	Magneto-Electric Machines. *See* 631·25.
	Dynamos, Motors. *See* 631·3.
	Induction Coils and High Frequency Apparatus. *See* 631·23.
	Transformers. *See* 631·45 *and* 631·8.
·3	Electrostatics.
·33	Electric Charge. Distribution, Density. Induction. Condensers. Dielectric.
	Atmospheric Electricity. *See* 555·7.
·4	Electric Current.
·46	Conductivity. Resistance. Heating Effect of Currents.
·465	Photoelectric Sensitivity.
·47	Thermo-Electricity.
	Electrolysis. *See* 542·8.
·6	Magnetism.
·61	Natural and Artificial magnets.
.62	Theory of Magnetic Field and Current.
·63	Magnetic Induction.
·65	Relations between Thermal, Elastic and Magnetic Properties.
·66	Diamagnetism.
	Terrestrial Magnetism. *See* 553·9.
·7	Electrodynamics.
·72	Mutual Action of Steady Currents and of Currents and Magnets. Mutual- and Self-induction.
·74	Alternating and Polyphase Currents. *See also* 631·51.
·76	High Frequency Currents.
.8	Electromagnetic Waves.
	X-rays. *See* 539·3.
·83	Electromagnetic Theory of Light.
·85	Influence of Electric and Magnetic Fields on Light.
	Determination of Magneto-optical Effect of Liquids. *See* 542·45.
·9	Electric Discharge.
·94	Disruptive Discharge. Spark. Oscillatory Discharges.
·96	Voltaic Arc.
	Discharge in Rarefied Gases. *See* 539·3.
	Ionization of Gases. *See* 539·5.
	Special Applications of Electricity. *See* 639.

539 Radiation.

·1 Luminescence, Fluorescence and Phosphorescence. *See also* 542·84.
·2 Heat Radiation.
·3 Electric Radiation. Electric Radiation in Rarefied Gases. Cathode Rays. Canal Rays. X-rays. Electrons.
Radiography. *See* 571·7.
·4 Radio-activity.
·5 Ionization of Gases.

540. CHEMISTRY.

Chemical Technology. *See* 640.

540·1 Works on Chemistry published before 1800.
·15 Bibliography.
·2 Text Books.
·21 Pocket Books.
Physical Chemistry. *See* 542.
Inorganic Chemistry. *See* 543.
Organic Chemistry. *See* 545.
·24 Alchemy.
·25 Popular Chemistry.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Chemistry. Lecture Apparatus and Experiments.
·8 Collected Works.
·9 History of Chemistry.
·95 Biography.

541 Practical Chemistry and Laboratory Procedure.

·1 Plans, Fittings, &c., of Laboratories.
·2 Apparatus in General. Balances.
Lecture Apparatus. *See* 540·7.
·25 Glass-blowing and Manipulation.
·3 Practical Physical Chemistry.
·35 Operations and Preparations in Inorganic Chemistry.
·4 Operations and Preparations in Organic Chemistry.
Practical Physiological Chemistry. *See* 612·21.
·5 Chemical Analysis.
·6 Qualitative Analysis. Inorganic and General.
·61 Qualitative Analysis. Organic.

PRACTICAL CHEMISTRY—continued.

541·63 ·64	Detection of Special Elements. [Arranged according to 543 and 544 by omitting "54" and adding the rest of the number to 541·6, *e.g.*, Detection of Arsenic, 541·6412.]
·65 ·66	Detection of Special Organic Compounds. [Arranged according to 545 and 546 by omitting "54" and adding the rest of the number to 541·6, *e.g.*, Detection of Phenol, 541·6523.]
·67	Blowpipe Analysis.
·68	Spectrum Analysis. Spectroscopes.
·69	Microscopical Chemical Analysis.
·7	Quantitative Analysis. Inorganic and General.
·71	Quantitative Analysis. Organic.
·73 ·74	Estimation of Special Elements. [Arranged according to 543 and 544 by omitting "54" and adding the rest of the number to 541·7, *e.g.*, Estimation of Arsenic, 541·7412.]
·75 ·76	Estimation of Special Organic Compounds. [Arranged according to 545 and 546 by omitting "54" and adding the rest of the number to 541·7, *e.g.*, Estimation of Phenol, 541·7523.]
·77	Gravimetric.
·78	Electrolytic.
·79	Volumetric.
·795	Colorimetric. Polarimetry, Saccharimetry. *See* 542·43.
·8	Gas Analysis.
·9	Technological Analysis.

For Special Subjects as below :—

Agricultural Analysis :—
Soils. *See* 672·15.
Plant Analysis. *See* 672·9.
Fertilisers. *See* 672·8.
Air. *See* 541·8.
Alcoholimetry. *See* 647·59.
Animal Products. *See* 612·219.
Assaying and Ore Analysis. *See* 665.
Cements. *See* 642·43.
Dairy Produce. *See* 613·7.
Drugs and Medicines. *See* 615·29.
Dyeing Materials. *See* 646·49.
Explosives. *See* 645·79.
Fibres. *See* 647·89.
Food Analysis. *See* 613·7.
Fuels. *See* 645·4.
Illuminants. *See* 645·43.
Iron and Steel Analysis. *See* 665·61.

PRACTICAL CHEMISTRY—continued.

Leather and Tanning Materials. *See* 647·91.
Mineral Oils. *See* 645·42.
Organic Oils, Fats and Waxes. *See* 647·29.
Ore Analysis. *See* 665.
Paints. *See* 642·8.
Paper-making Materials. *See* 647·82.
Rock Analysis. *See* 551·13.
Sewage Analysis. *See* 623·899.
Solid Fuels. *See* 645·41.
Textiles. *See* 647·89.
Toxicology. *See* 615·4.
Varnishes. *See* 647·67.
Water Analysis. *See* 623·78.
Wines and Spirits. *See* 647·59.

542	**Theoretical and Physical Chemistry.**
·1	Atomic Theory.
	Constitution of the Atom. *See* 532·6.
·11	Atomic Weights.
·12	Classification of the Chemical Elements. Periodic Law.
·13	Valency, Allotropy, Isomerism. Molecular Weights. Chemical Compounds.
·14	Atomic and Molecular Volumes.
·15	Stereochemistry.
·2	Chemical Dynamics.
·21	Chemical Kinetics.
·22	Chemical Affinity.
·23	Heat of Reaction and Solution. Thermochemistry.
·24	Reaction Velocity. Catalysis.
·25	Chemical Equilibrium. Phase Rule.
·26	Gaseous Systems. Pressure of Gases and Vapours. Compressibility of Gases.
·27	Liquefaction of Gases. Critical Point.
·28	Mass Action. Types of Chemical Reaction.
·29	Density. Specific Gravity. *See also* 531·45.
·291	Solids.
·293	Liquids and Solutions.
·295	Gases and Vapours.
·3	Solutions. Solubility.
·31	Solutions of Solids in Liquids.
·32	,, Liquids in Liquids.
·33	,, Gases in Liquids.
	Conductivity. *See* 542·82.
·34	Osmosis. Osmotic Pressure.
·343	Reduction of Vapour Pressure and Elevation of Boiling Point.
·345	Depression of Freezing Point.
·35	Diffusion.
·353	Solids.
·355	Liquids.
·357	Gases.

THEORETICAL CHEMISTRY—continued.

542·36 Compressibility of Liquids and Solutions.
  Compressibility of Solids. *See* 532·65.
·37 Surface Tension. Capillarity. Molecular Cohesion.
·39 Viscosity. *See also* 532·4.
·4 Optical Properties.
·41   Refractive Indices. Refractometers.
·42   Colour. Absorption Spectra.
·43   Rotation of Plane of Polarisation. Polarimetry.
·45 Magnetic Properties.
·5 Thermal Properties.
·51   Boiling Points.
    Tables. *See* 542·9.
·52   Distillation. *See also* 641·8.
·53   Melting and Freezing Points. *See also* 537·77.
·54   Specific Heats. *See also* 537·2.
·545   Latent Heats.
·55   Thermal Expansion of Liquids.
·56   Chemistry of High and Low Temperatures.
·57   Methods of producing High, Low and Constant Temperatures. Thermostats.
      High Temperature Measurements. *See* 537·15.
      Low Temperature Measurements. *See* 537·17.
·59   Combustion. Ignition Points. Flame. Explosion.

·6 Crystallisation. Conditions governing Crystal Size and Form. Crystallisation of Mixtures.
·7 Colloids. Dispersoidology.
·71   Apparatus and Methods. Ultramicroscopy. Dialysis. Ultrafiltration.
·72   Sols.
·73   Subsidence of Fine Particles in Liquids. Molecular Reality.
·735   Brownian Movement.
·74   Optical Properties of Disperse Systems.
·75   Electrical Properties. Cataphoresis. Electroendosmosis. Permeability of Membranes.
·755   Stability of Sols. Precipitation.
·76   Gels. Solation. Gelation.
·77   Adsorption. Surface Condensation. Imbibition.
·78   Banded Precipitates in Gels. Concretions.
·785   Elastic Properties.
·79   Special Applications of Colloid Chemistry.

Theoretical Chemistry—continued.

542·8	Electrochemistry. Electrolysis.
·82	Conductivity.
·84	Systems exposed to Radiation. Luminescence. Fluorescence. *See also* 539·1.
·86	Photochemistry.
·89	Applications of the Quantum Theory of Energy.
·9	Tables of Chemical Constants. *See also* 531·9.
·99	Chemical Calculations. Collections of Problems.

543 Inorganic Chemistry.

For the metals in general, *see also* 661.

·01	Inert gases.
·02	Helium.
·03	Neon.
·04	Argon.
·05	Krypton.
·06	Xenon.
·08	Niton.
·1	Hydrogen.
·105	Water.
·11	Alkali Metals.
·12	Lithium.
·13	Sodium.
·14	Potassium.
·15	Rubidium.
·16	Caesium.
·19	Ammonium Salts.
·2	Copper, Silver and Gold Group.
·21	Copper.
·22	Silver.
·24	Gold.
·3	Alkaline Earth Metals.
·31	Beryllium, Glucinum.
·32	Magnesium.
·33	Calcium.
·34	Strontium.
·35	Barium.
·38	Radioactive Elements.
·39	Radium.
·4	Zinc, Cadmium and Mercury Group.
·41	Zinc.
·42	Cadmium.
·44	Mercury.
·5	Scandium Group and Rare Earths.
·51	Scandium.
·52	Yttrium.
·53	Lanthanum.
·54	Cerium.
·55	Didymium.
·553	Praseo-dymium.
·555	Neo-dymium.
·56	Samarium.
·57	Erbium.
·6	Boron Group.
·61	Boron.
·62	Aluminium.
·63	Gallium.
·64	Indium.
·66	Thallium.
·7	Titanium Group.
·71	Titanium.
·72	Zirconium.
·75	Thorium.
·8	Carbon Group.
·81	Carbon.
·82	Silicon.
·83	Germanium.
·84	Tin.
·86	Lead.
543·9	Vanadium Group.
·91	Vanadium.
·92	Niobium, Columbium.
·94	Tantalum.
544	Nitrogen Group.
·1	Nitrogen.
·11	Phosphorus.
·12	Arsenic.
·13	Antimony.
·15	Bismuth.

INORGANIC CHEMISTRY—continued.

544·2 Chromium Group.
·21 Chromium.
·22 Molybdenum.
·24 Tungsten.
·25 Uranium.
·4 Manganese.
·6 Iron Group.
·61 Iron.
·62 Cobalt.
·63 Nickel.
·8 Osmium Group.
·81 Osmium.
·82 Iridium.
·83 Platinum.

·3 Oxygen Group.
·31 Oxygen.
·315 Air.
Combustion, Flame. *See* 542·59.
544·32 Sulphur.
·33 Selenium.
·34 Tellurium.
·5 Halogen Group.
·51 Fluorine.
·52 Chlorine.
·53 Bromine.
·54 Iodine.
·7 Ruthenium Group.
·71 Ruthenium.
·72 Rhodium.
·73 Palladium.
·9 Other Elements.

545 Organic Chemistry.

·1 Hydrocarbons.
·11 Open Chain Hydrocarbons.
·13 Closed Chain Hydrocarbons.
·15 Unclassified Hydrocarbons.
·2 Alcohols and Ethers.
·21 Open Chain.
·23 Closed Chain.
·25 Unclassified.
·3 Acids, Nitriles and Esters.
·31 Open Chain.
·33 Closed Chain.
·35 Unclassified.
·4 Aldehydes and Ketones.
·41 Open Chain.
·43 Closed Chain.
·45 Unclassified.
·5 Carbohydrates, Glucosides, Resins.
·51 Carbohydrates. Cellulose. Polysaccharides.
·57 Glucosides.
·59 Resins.
·6 Amino-Compounds.
·61 Open Chain.
·63 Closed Chain.
·65 Unclassified.
·7 Azo-Compounds.
·71 Open Chain.
·73 Closed Chain.
·75 Unclassified.

ORGANIC CHEMISTRY—continued.

545·8 Diazo-Compounds.
·81 Open Chain.
·83 Closed Chain.
·85 Unclassified.
·9 Sulphoxides, Sulphones, Sulphonium Compounds, Sulphines, Iodonium Compounds.
·91 Open Chain.
·93 Closed Chain.
·95 Unclassified.

546 Mixed Cycloids.
·1 Cycloids containing Oxygen.
·2 „ „ Sulphur, Selenium, Tellurium.
·3 „ „ Nitrogen and Phosphorus.
·7 Organo-Metallic and Allied Compounds.
·8 Alkaloids.
·83 Alkaloids derived from Plants.
·85 „ „ „ Animals. Ptomaines.
·9 Proteins. *See also* 612·14.
·91 Animal Proteins.
·92 Vegetable Proteins.
·97 Unclassified Substances.

Physiological Chemistry, Biochemistry. ***See*** **612·2.**

pies in classified [illegible] crystal- graphy)

548 Crystallography. Chem or Physics

·01 Works on Crystallography published before 1800.
·015 Bibliography.
·02 Text Books.
·03 Dictionaries and Encyclopædias.
·04 Essays, Lectures and Addresses.
·05 Journals.
·06 Transactions of Societies.
·065 Congresses.
·067 Exhibitions.
·07 Teaching of Crystallography.
·08 Collected Works.
·09 History of Crystallography.
·095 Biography.
·1 Mathematical and Geometrical Crystallography.
·2 Crystal Structure. X-ray Analysis.
·23 Twinning.
·3 Physical Crystallography.
·31 Cohesion, Elasticity, Cleavage, Hardness, &c.
·32 Etching.
·4 Optical Properties.
·45 Liquid Crystals.
·47 Thermal Properties.
·48 Electrical Properties.

CRYSTALLOGRAPHY—continued.

548·49 Magnetic Properties.
·5 Chemical Crystallography.
·55 Isomorphism, Polymorphism.
Crystallisation. *See* 542·6.
Stereochemistry. *See* 542·15.
·6 Determinative Crystallography. Goniometric and Optical Measurements.
·7 Descriptive Crystallography.
Inorganic Substances, exclusive of Minerals. ***See*** **543 to 544.**
Organic Substances. ***See*** **545 to 546.**
Minerals. ***See*** **549·7.**

549 Mineralogy.

·01 Works on Mineralogy published before 1800.
·015 Bibliography.
·02 Text Books.
·025 Popular Mineralogy.
Collecting Minerals. ***See*** **550·23.**
Mineralogical Museums. ***See*** **550·26.**
·03 Dictionaries and Encyclopædias.
·04 Essays, Lectures and Addresses.
·05 Journals.
·06 Transactions of Societies.
·065 Congresses.
·067 Exhibitions.
·07 Teaching of Mineralogy.
·08 Collected Works.
·09 History of Mineralogy.
·095 Biography.
·1 General Mineralogy.
·12 Alteration, Pseudomorphs.
·14 Artificial Production of Minerals. Mineral Synthesis.
·15 Artificial Gems.
Rock-forming Minerals. ***See*** **551·17.**
·3 Gems and Precious Stones.
·5 Mineralogical and Geological Chemistry.
Microchemical Analysis. ***See*** **541·9.**
·6 Determinative Mineralogy.
Blowpipe Analysis. ***See*** **541·67.**
·7 Descriptive Mineralogy.
·71 Native Elements.
·72 Sulphides, Selenides, Tellurides, Arsenides, Antimonides.
·73 Sulpho-salts. Sulpharsenites, &c.
·74 Haloids.
·75 Oxides.
·76 Silicon Compounds. Silicates.
·77 Compounds of Boron, Nitrogen and Phosphorus.
·78 Oxygen Salts, except Silicates, Borates, Nitrates and Phosphates.

MINERALOGY—continued.

549·79 Carbon.

Diamond. *See* 549·3.

·795 Hydrocarbons. Bitumen, Asphalts, Fossil Waxes.

·797 Fossil Resins. Amber. *See also* 652·1.

·799 Organic Salts.

·8 Meteorites.

·9 Mineralogy of Different Countries.

[Arranged according to Topographical numbers, 990–999, by omitting the "99" and adding the rest to 549·9, thus, New South Wales, 996·5—Mineralogy of New South Wales, 549–965.]

550. GEOLOGY.

550·1 Works on Geology published before 1800.

·15 Bibliography.

·2 Text Books.

·21 Philosophies. Theories.

·22 Experimental Geology.

·23 Practical and Field Geology. Directions for Collecting Fossils, Rocks and Minerals.

·25 Popular Geology.

·26 Museums.

·263 Preparation and Preservation of Specimens.

·267 Classification and Exhibition of Specimens. Cases and Fittings. Labels.

·3 Dictionaries and Encyclopædias.

·4 Essays, Lectures and Addresses.

·5 Journals.

·6 Transactions of Societies.

·65 Congresses.

·67 Exhibitions.

·7 Teaching of Geology.

·8 Collected Works.

·9 History of Geology.

·95 Biography.

Economic Geology. *See* 651.

Geological Chemistry. *See* 549·5.

551 Petrology.

·021 Nomenclature.

·1 Methods of Examination of Rocks.

·13 Chemical Examination of Rocks. Rock Analysis.

·17 Rock-forming Minerals. Examination of Rock Sections with Microscope. Petrographical Microscopes. *See also* 571·4.

·2 Igneous Rocks.

·3 Holocrystalline.

·4 Hemicrystalline.

·5 Glassy. Obsidian, Tachylyte.

PETROLOGY—continued.

551·6 Sedimentary Rocks.

·61 Sands and Sandstones.

·62 Fragmental Volcanic Deposits.

·63 Clays and Shales. Marls.

·64 Limestones. Dolomite.

·65 Bone Beds and Phosphatic Deposits.

·66 Rocks deposited from Solution. Stalactites, Travertine, Gypsum, Rock Salt.

·67 Segregative and Pseudometamorphic Rocks. Colloid Phenomena.

·68 Vegetable Deposits. Coal, Brown Coal, Diatomaceous Deposits.

·69 Mixed Coarse Fragmental Deposits. Gravel.

·7 Metamorphic Rocks.

·77 Crystalline Limestone.

552 Dynamical Geology and Physical Geography.

Physiography. *See* 502·3.
Geological Chemistry. *See* 549·5.

·1 External Dynamics of the Earth. Epigene Action. Denudation. Sedimentation. Deposition.

·2 Action of Air. Aerial Erosion. Dunes.

·3 Aqueous Agencies.

·31 Rain. Weathering.

·32 Superficial Water.

·33 Streams, Marshes, Ponds.

·34 Hydrology. Rivers, Floods, Deltas, Waterfalls, Drainage Systems.

·35 Lakes.

·36 Underground Water.

·37 Springs, Mudstreams, Landslides.

·38 Subterranean Channels, Rivers, and Lakes.

·39 Fissures, Grottoes, Caverns. Speleology.

·4 Marine Agencies.

·43 Coasts. Coast Changes, Gulfs, Bays, Enclosed Seas, Submarine Contours.

·45 Islands.

·47 Plains, Deserts.

DYNAMICAL GEOLOGY—continued.

552·5 Oceanography.
·51 Ocean Area, Depth, Colour, Transparency.
·52 Tides, Currents, Waves.
Theory of Tides. *See* 522·8.
·53 Temperature.
·54 Density, Salinity, Chemical Composition of Sea Water.
·55 Ocean Deposits. Deep Sea Deposits.
·56 Hydrographical Surveying.
·565 Instruments.
·566 Sounding Machines.
·567 Water Bottles.
·568 Thermometers.
·569 Other Instruments.
Logs. *See* 529·25.
·57 Coast Surveys.
·58 River Surveys.
·59 Oceanography of Special Areas.

[Arranged according to areas by adding the Topographical numbers, 990–999, with "99" omitted, to 552–59, *e.g.*, Atlantic Ocean, 997·7, Hydrographical Survey of Atlantic Ocean 552·5 977.]

Maps and Charts. *See* M 990, &c.

·6 Action of Ice on Land and Sea.
·63 Snowfields, Glaciers.
·67 Icebergs.
·7 Action of Plants, Animals and Man.
·75 Coral Formations.
·8 Internal Dynamics of the Earth. Hypogene Action.
·81 Constitution and Internal Heat of the Earth.
·82 Volcanoes.
·83 Thermal Springs. Mud Volcanoes. Geysers.
·84 Earthquakes.
·85 Instruments and Methods of Measuring Earthquakes.
·86 Catalogues of Earthquakes.
·9 Tectonic Geology. Stratification and Field Features of Rocks.
·91 Original Structures. Stratification, Lamination, Overlap.
·93 Subsequently Imported Structures. Joints, Faults, Cleavage, Overthrusting, Plication, Geo-synclines, Geo-anticlines.

DYNAMICAL GEOLOGY—continued.

552·95	Eruptive Rocks as Part of the Earth's Crust. Bosses, Sills, Dykes and Veins.
·96	Metamorphism.
·97	Contact Metamorphism.
·98	Regional Metamorphism.
·99	Orogeny. Structure and History of Mountain Ranges. Secular Upheaval and Subsidence.
553	**Meteorology.**
·01	Works on Meteorology published before 1800.
·015	Bibliography.
·02	Text Books.
·03	Dictionaries and Encyclopædias.
·04	Essays, Lectures and Addresses.
·05	Journals.
·06	Transactions of Societies, including Reports of Observatories.
·065	Congresses.
·067	Exhibitions.
·07	Teaching of Meteorology.
·08	Collected Works.
·09	History of Meteorology.
·095	Biography.
·1	Methods of Observation and Computation. Practical Meteorology.
·2	Instructions for Observers.
·3	Tables for Reductions, &c.
·5	Observatories and Instruments.
·55	Barometers. Aneroids.
	Hypsometers. *See* 528·645.
·6	Thermometers.
·63	Hygrometers. Psychrometers. Dew Point Instruments. Evaporimators.
·65	Dust Counters and Apparatus for Measuring Impurities in the Air.
·67	Ozonometers.
·7	Rain Gauges.
·71	Anemometers.
·73	Actinometers. Sunshine Recorders.
·77	Nepheloscopes.
·8	Kites. Balloons. *See also* 629·46 and 629·47.
·85	Photographic Apparatus.
·89	Other Instruments.
·9	Terrestrial Magnetism.
·91	Magnetic Observatories. Methods of Observation. Instruments.

METEOROLOGY—continued.

553·92	Magnetic State of the Earth's Surface. Magnetic Surveys.
	[Arranged according to countries by placing the Topographical numbers, 990 to 999, with "99" omitted, in round brackets after the number 553·92, *e.g.*, Magnetic Survey of the United States, 553·92 (46).]
·93	Secular Changes.
·935	Diurnal and other Magnetic Variations.
·94	Magnetic Storms.
·95	Relations between Terrestrial Magnetism and the Heavenly Bodies.
·96	Relations between Terrestrial Magnetism and Geology. Earth Currents.
·97	Theories of Terrestrial Magnetism.
	Deviation of the Compass, Magnetism of Ships. *See* 529·24.
554	Physics of the Atmosphere.
·1	Extent of the Atmosphere. Impurities and Dust.
	Chemistry of the Air. *See* 544·315.
·2	Cosmical Relations. Solar, Lunar and Planetary Influences.
·25	Meteorology of the Upper Air.
·3	Optical Phenomena.
·31	Coloration of the Sky.
·32	Polarisation, Reflection, Refraction, Mirage, Visibility, Twilight Phenomena.
·33	Rainband.
·34	Halos, Coronæ, Parhelia.
·35	Rainbows.
·37	Fogbows.
·4	Atmospheric Pressure. Density.
·45	Variation with Altitude.
	Hypsometry. *See* 528·645.
·5	Temperature and Radiation.
·6	Atmospheric.
·65	Variation with Altitude.
·7	Earth Temperatures.
	Sea Temperatures. *See* 552·53.
·8	River and Lake Temperatures.
·9	Solar Radiation.
·95	Terrestrial Radiation.
555	Aqueous Vapour and Rain.
·1	Vapour. Humidity.
·13	Variation with Altitude.
·15	Dew Formation. Frost.
·16	Fog.
·17	Clouds.

METEOROLOGY—continued.

555·2	Rain.
·23	Influence of Physical Features on Precipitation.
·24	Influence of Forests on Precipitation.
·28	Hail.
·29	Snow. Sleet.
·3	Wind.
·35	Winds at High Altitudes.
·4	Constant and Local Winds.
·5	Periodical Winds. Land and Sea Breezes. Monsoons.
·6	Cyclones and Anticyclones.
·61	Storms.
·64	Thunderstorms.
·65	Hurricanes. Typhoons. Tornadoes. Whirlwinds.
·66	Waterspouts.
·67	Dust Storms.
·68	Anticyclones.
·7	Atmospheric Electricity.
·71	Electrometers and Apparatus relating to Atmospheric Electricity.
·73	Lightning.
·75	Auroræ.
·8	Climatology and Weather.
·85	Weather Forecasting.
·9	Meteorology of Different Countries. [Arranged according to Topographical numbers, 990–999, by omitting the "99" and adding the rest of the number to 555·9, *e.g.*, India, 992·4—Meteorology of India, 555·924.]
M 555·9	Meteorological Maps. [These follow in the same order as above, M being prefixed to the numbers.]

556	**Stratigraphical Geology.** [Numbers in round brackets "( )" following the classes 556 to 558 represent Topographical divisions 990–999, with "99" omitted.]
·01	Age of the Earth. Geological Time. Climatic Variations. Glacial Epoch. *See* 558·85.
·1	Archæan. Pre-cambrian (Algonkian, Keweenawan, Huronian, Laurentian, Keewatin).
·2	Palæozoic.
·3	Lower Palæozoic.
·4	Cambrian.
·45	Ordovician (Lower Silurian).
·5	Silurian (Upper Silurian).

STRATIGRAPHICAL GEOLOGY—continued.

556·6 Upper Palæozoic.
·7 Devonian.
·73 Devonian Type of Great Britain.
·75 Old Red Sandstone Type of Great Britain.
·8 Carboniferous.
·81 Carboniferous Limestone.
·83 Millstone Grit.
·85 Lower Coal Measures.
·87 Middle Coal Measures.
·89 Upper Coal Measures.
·9 Permian (Dyas).

557 Mesozoic.
·1 Trias.
·11 Bunter.
·13 Muschelkalk.
·15 Keuper.

·2 Jurassic.
·3 Rhætic.
·4 Lower Jurassic (Black Jura).
·41 Lower Lias.
·43 Middle Lias.
·45 Upper Lias.
·5 Middle Jurassic (Dogger or Brown Jura).
·51 Inferior Oolite (Bajocian).
·53 Great Oolite (Bathonian).
·6 Upper Jurassic (Malm or White Jura).
·61 Oxfordian. Oxford Clay and Kelloway's Rock.
·63 Corallian. Coral Rag, Coralline Oolite, Calcareous Grit.
·65 Kimmeridgian. Solenhofen Stone.
·67 Portlandian.
·69 Purbeckian.

·7 Cretaceous.
·71 Lower Cretaceous.
·73 Wealden (Neocomian).
·75 Lower Greensand (Urgonian, Aptian).

·8 Upper Cretaceous.
·81 Gault (Albian).
·83 Upper Greensand.
·9 Chalk.

·91 Lower Chalk (Cenomanian).
·93 Middle Chalk (Turonian).
·95 Upper Chalk (Senonian, Danian).

STRATIGRAPHICAL GEOLOGY—continued.

558 Cainozoic (Tertiary).
·1 Eocene.
·2 Lower Eocene.
·21 Lower London Tertiaries. Reading Beds. (Thanetian, Sparnacian.)
·23 London Clay. (Ypresian.)
·3 Middle Eocene (Lutetian).
.4 Upper Eocene (Bartonian, Ludian).
·5 Oligocene. Fluvio-marine Series.
·51 Lower Oligocene (Tongrian).
·53 Middle Oligocene (Stampian).
·55 Upper Oligocene (Aquitanian).
·6 Miocene.
·7 Pliocene.
·8 Pleistocene. Quaternary. Recent.
·85 Ice Age.
Prehistoric Man, &c. *See* 578, *et seq.*

559 Geology of different Countries. *See also* 508.

[Arranged by adding the Topographical numbers, 990–999, with "99" omitted, to 559, *e.g.*, Transvaal, 993·75—Geology of the Transvaal, 559·375.

Numbers in square brackets "[ ]" following these represent Stratigraphical divisions, 556 to 558, with "55" omitted.]

M 559 Geological Maps.

[Geological maps follow the works on the Geology of the different countries in the same order, M being prefixed to the numbers, thus: Geological maps of the Transvaal are M 559·375.]

560. PALÆONTOLOGY.

560·1 Works on Palæontology published before 1800.
·15 Bibliography.
·2 Text Books, including those dealing with both Plants and Animals.
Text Books on Fossil Plants. *See* 561·1.
·25 Popular Works.
Collecting Fossils. *See* 550·23.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Palæontology.
·8 Collected Works.
·9 History of Palæontology.
·95 Biography.

561 Fossils in general.
·1 Fossil Botany.

PALÆONTOLOGY—continued.

561·3, ·4, ·5, ·6, ·7, ·8, ·9 Fossil Plants classified as in Botany, 583 to 589, by omitting the " 58 " and adding the rest of the Botanical number to 561, *e.g.*, Coniferæ, 585·2—Fossil Coniferæ, 561·52.

563, 564, 565, 566, 567, 568, 569 Fossil Animals classified as in Zoology, 593 to 599, by changing the second figure " 9 " into " 6," *e.g.*, Mollusca, 595—Fossil Mollusca, 565.

[Numbers in round brackets " ( ) " following the classes 561 to 569 represent Topographical divisions, 990 to 999, with " 99 " omitted.]

570. BIOLOGY.

570·1 Works on Biology published before 1800.
·15 Bibliography.
·2 Text Books.
·21 Collectors' Manuals.
·25 Popular Natural History.
·26 Museums.
·263 Preparation and Preservation of Specimens. Museum Pests.
·267 Classification and Exhibition of Specimens. Cases and Fittings. Labels.
·27 Aquaria. Vivaria.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Biology.
·78 Nature Study.
·8 Collected Works.
·9 History of Biology.
·95 Biography.

571 **Practical Biology.**
·1 Plans, Fittings, &c., of Biological Stations and Laboratories.
·2 Apparatus in General.
·3 Microscopy.
·4 Varieties of Microscopes.
·45 Accessory Apparatus. Illumination.
Petrographical Microscopes. *See* 551·17.
Ultramicroscopy. *See* 542·71.
·5 Microphotography.

PRACTICAL BIOLOGY—continued.
571·6 Preparation and Mounting of Objects.
·63 Microtomes.
·65 Botanical Objects.
·67 Zoological Objects.
Histology. *See* 591·202.
·7 Radiography.
·8 Measuring and Weighing.
·9 Other Special Methods.
572 Cytology.
·05 Protistology.
·1 Cytoplasm. Protoplasm.
·2 Nucleus.
·3 Cell Contents. Centrosome, Chrondriosomes, Chloroplasts, Starch Crystals, Vacuoles, Reserve Material, Skeleton.
Chlorophyll. *See* 612·245.
·4 Cell Membrane.
·5 Physics and Physical Chemistry of Cells. Influence of Chemical and Physical Agents on Cells.
·7 Physiological Properties of Cells. Irritability.
·8 Cell and Nuclear Division. Karyokinesis.
·9 Pathology of Cells. Death.
573 Embryology (Ontogeny).
·2 Asexual Reproduction.
·3 Sexual Reproduction.
·4 Production of Sex.
·5 Parthenogenesis.
·6 Metamorphosis.
·7 Alternation of Generations.
·8 Hermaphroditism.
·9 Mechanism of Development. Experimental Morphology.
·93 Influence of Internal Agencies.
·95 Influence of External Agencies.
·97 Telegony.
574 Evolution. Theory of Descent.
·1 Origin of Life.
·3 Spontaneous Generation. Abiogenesis.
·5 Hybridisation. Grafts. Inbreeding.
·7 Genetics. Inheritance. Mendelism.
·8 Variation.
·9 Phylogeny. Consanguinity.
[In this section purely Botanical works and purely Zoological works follow the more general treatises with ": 8" and ": 9" added to the numbers.]

575 Physiology. Life of the Individual. Vitalism and other Theories.
·1 Duration of Life. Periodicity of Vital Phenomena. Revivescence.

PHYSIOLOGY—continued.

575·2 Physics and Physical Chemistry of the Organism.
·3 Metabolism. Food. Assimilation. Disassimilation. Excretion. *See also* 612·8.
·4 Respiration.
·5 Energetics. Performance of Work in General.
·6 Changes during Life. Growth. Senescence. Degeneration.
·8 Difference between Animals and Plants.
·9 Death.

576 Œcology. Relations to External Conditions.

·1 Dispersal and Wandering.
·15 General Biology of Polar Regions.
·2 ,, ,, Temperate Regions.
·3 ,, ,, Tropical Regions.
·4 ,, ,, Islands.
·41 ,, ,, Mountains.
·42 ,, ,, Caverns.
·43 ,, ,, Plains and Deserts.
·5 Freshwater Life.
·51 General Biology of Lakes. Limnoplankton.
·52 ,, ,, Rivers.
·53 ,, ,, Springs, Wells, Ponds, &c.
·6 General Biology of the Sea.
·61 Biology of the Ocean Surface. Plankton.
·62 Pelagic Life.
·63 Deep Sea Life.
·7 Acclimatisation.
·8 Adaptation. Protective Mechanisms.
·83 Symbiosis.
·85 Parasitism.
·87 Colonies.

577. ANTHROPOLOGY.

577·01 Works on Anthropology published before 1800.
·015 Bibliography.
·02 Text Books.
·021 Instructions for Travellers.
·026 Anthropological Museums.
·03 Dictionaries and Encyclopædias.
·04 Essays, Lectures and Addresses.
·05 Journals.
·06 Transactions of Societies.
·065 Congresses.
·067 Exhibitions.

ANTHROPOLOGY—continued.

577·07	Teaching of Anthropology.
·08	Collected Works.
·09	History of Anthropology.
·095	Biography.
577·1	**Archæological Anthropology.**
·11	Descent of Man.
·15	Tertiary Man.
·17	Quaternary Man.
·2	Palæolithic Man.
·23	Bone Caves.
·25	Neolithic Man.
·27	Flint Implements.
·29	Megalithic Monuments, Buildings and Relics of Early Man.
·3	Bronze Age.
·35	Iron Age and Early Historical Races.
577·5	**Physical Anthropology.**
·6	Anthropometry. Bodily Form and Dimensions. Stature, Symmetry and Asymmetry.
·7	Anthrometrical Instruments and Methods.
·79	Tables of Anthropometrical Measurements.
·81	Osteology. Skeletal System.
·813	Craniology. Skull. Teeth.
·815	Physiognomy.
·82	Muscular System.
·83	Nervous System and Organs of Sense.
·84	Circulatory System.
·845	Glandular and Lymphatic System.
·85	Respiratory System.
·86	Digestive System.
·87	Excretory System. Generative Organs. Breasts.
·88	Integument. Pigmentation.
·885	Finger Prints.
·89	Teratology.
578	**Physiological and Psychological Anthropology.**
·1	Physical Powers. Bodily Strength, Speed, Endurance, Development, Growth.
·15	Senses. Voice, Expression of the Emotions.
·2	Racial Crossing.
·25	Sexual Functions. Puberty, Fertility, Birth.
·3	Vitality, Senescence, Death.
·35	Racial Liability to, or Immunity from, Disease.
·4	Effects of Climate, Environment. Acclimatization.
·45	Mental and Emotional Capacity.

578·5	**Social Anthropology, Physical and Cultural.**
·55	Material Culture. Food, Dwellings, Industrial Occupations and Appliances, Arts, Sports.
·6	Language from an Ethnic Standpoint.
·65	Science of Primitive Man.
·7	Religion, Magic, Religious Customs.
·75	Family and Social Organisation. Institutions and Customs.
·8	Sociology.
·85	Criminal Anthropology. Anthropology of Degenerates.
·9	Classification of Races.
579	**Description of Races. Anthropology of different Countries.** *See also* 508.
	[Arranged by adding the Topographical numbers, 990–999, with "99" omitted, to 579, *e.g.*, Australia, 996·3—Anthropology of Australia, 579·63.]

580. BOTANY.

580·1	Works on Botany published before 1800.
·15	Bibliography.
·2	Text Books.
·21	Collectors' Manuals.
·25	Popular Botany.
·26	Museums. Herbariums.
·263	Preparation and Preservation of Specimens.
·267	Classification and Exhibition of Specimens. Cases and Fittings. Labels.
·27	Botanical Gardens. Conservatories.
·3	Dictionaries and Encyclopædias.
·4	Essays, Lectures and Addresses.
·5	Journals.
·6	Transactions of Societies.
·65	Congresses.
·67	Exhibitions.
·7	Teaching of Botany.
·8	Collected Works.
·9	History of Botany.
·95	Biography.
581	**Practical Botany. Laboratory Manuals.**
·1	Plans, Fittings, &c., of Botanical Stations and Laboratories.
·12	Apparatus in General.
	Microscopy. *See* 571·3.

581·2 Morphology, Anatomy, Histology.

·22	Vegetative Organs.
·23	Shoot, Stem, Leaf.
·24	Root.
·25	Thallus.
·26	Reproductive Organs.
·27	Reproductive Organs of Spermatophytes.
·273	Flower and Inflorescence.
·276	Fruit and Seed.
·28	Reproductive Organs of Cryptogams.
·29	Teratology.
	Cytology. *See* 572.

581·3 Embryology.

·32	Vegetative and Asexual Reproduction. Grafting.
·33	Sexual Reproduction. Pollination. Fertilization and its Conditions.
·34	Influence of Environment on Reproduction.
·35	Germination.
·36	Dispersal Mechanism.
·37	Alternation of Generations.
	Evolution. *See* 574.
	Genetics. *See* 574·7.

581·5 Physiology.

·51	Duration of Life.
·52	Absorption and Translocation of Water. Transpiration.
·53	Metabolism. Nutrition.
	Chlorophyll. *See* 612·245.
·54	Respiration.
·55	Energetics. Supply and Dissipation of Energy.
·555	Luminescence.
·56	Growth.
·58	Sensitiveness. Irritability. Movements. *See also* 581·69.
·59	Death.

581·6 Œcology.

·61	Dispersal and Wandering.
·615	Flora of Polar Regions.
·62	,, Temperate Regions.
·63	,, Tropical Regions.
·64	,, Islands.
·641	,, Mountains.
·642	,, Caverns.
·643	,, Plains and Deserts.
·65	Freshwater Flora.

Œcology—continued.

581·651	Flora of Lakes.
·652	,, Rivers.
·653	,, Springs, Wells, Ponds, Marshes, &c.
·66	Flora of the Sea.
	Plankton. *See* 576·61.
·67	Acclimatization.
·68	Nutritive Adaptation.
·681	Carnivorous Plants.
·683	Symbiosis.
·685	Parasitism.
·687	Saprophytism.
·688	Protective Adaptation. Colouration.
·689	Epiphytes.
·69	Climbing Plants.
·695	Phenology.
	Economic Botany. *See* 673.
	Diseases of Plants. *See* 674·1.

581·7 Forestry.

·7021	Foresters' Manuals.
·7023	Tables.
·7029	Legislation.
·71	Sylviculture.
·715	Locality in relation to Forest Vegetation.
·72	Natural History of Trees. Development of Forest Trees, Growth, Duration of Life, Reproduction.
·73	Books on Trees.
	Trees of different Countries. *See* 581·89.
·74	Afforestation. Character and Composition of Woods. Sylvicultural Systems.
·75	Forest Management.
·751	Instruments for Measurement of Trees and Felled Trees. Girth, Diameter, Height, Age.
·753	Forest Valuation.
·755	Management. Increment, Rotation, Growing Stock, Yield. Preparation of Statistics and Working Plans.
·76	Forest Utilization.
·77	Timber.
·771	Felling and Conversion of Timber.
·772	Sawmills.
·773	Seasoning and Drying of Timber. Drying Kilns.
·774	Characteristics of Wood.
	Mechanical Properties. *See* 621·4.

FORESTRY—continued.

581·776 Decay and Preservation. Wood-boring Animals. Antiseptic Treatment of Timber.

·778 Wood Transport.

·78 Minor Products.
·782 Cork.
·784 Resin Tapping.
Turpentine. *See* 647·32.
Charcoal Burning. *See* 645·16.

·8 Diseases and Protection of Trees. *See also* 674.

·811 Weeds.

·813 Effects of Injurious Atmospheric Conditions. Impurities in the Air, Frosts, Wind, Insolation, Violent Rain, Hail, Snow.
·815 Drought.

·817 Effects of Non-atmospheric Natural Phenomena. Inundations.
·818 Fires.

·819 Wounds and Mutilations. Reparative Processes.

·82 Diseases due to Plants.
·825 Bacteria.
·83 Fungi.

·84 Injurious and useful Animals.
·841 Insects.
General Economic Entomology. ***See*** **674·41.**
·843 Orthoptera.
·845 Neuroptera.
·847 Hemiptera.
·849 Diptera.
·85 Lepidoptera.
·86 Coleoptera.
·865 Hymenoptera.
·869 Galls.
·87 Birds.
·875 Mammals.
·879 Other Animals.

·88 Treatment of Diseases and Pests. *See also* 674·8.

Insecticides, Fungicides. ***See*** **674·81.**
Spraying. ***See*** **674·83.**
Fumigation. ***See*** **674·85.**

·89 Forestry of different Countries.

[Arranged by adding the Topographical numbers, 990–999, with "99" omitted, to 581·89, *e.g.*, United States, 994·6—Forestry of the United States, 581·8946.]

581·9 Geographical Distribution of Plants. Botany of Different Countries. *See also* 508.

[Arranged by adding the Topographical numbers, 990 to 999, with "99" omitted, to 581·9, *e.g.*, Switzerland, 992—Botany of Switzerland, 581·912.

Numbers preceded by a colon ":" following these represent the Botanical Classification, 583 to 589, with "58" omitted.]

582 Taxonomy. General Systematic Botany.

·1 Nomenclature.

583 Phanerogamia.

[Figures in parentheses, following the Botanical numbers, represent Topographical divisions, 990–999, with "99" omitted.]

·05 Angiospermæ.
·1 Dicotyledonæ.
·11 Polypetalæ.
·111 Ranales.
·112 Ranunculaceæ.
·113 Dilleniaceæ.
·114 Calycanthaceæ.
·115 Magnoliaceæ.
·116 Anonaceæ.
·117 Menispermaceæ.
·118 Berberidaceæ.
·119 Nymphæaceæ. Water-lilies.
·12 Parietales.
·121 Sarraceniaceæ.
·122 Papaveraceæ. Poppies.
·123 Cruciferæ.
·131 Capparideæ.
·133 Resedaceæ. Mignonette.
·134 Cistineæ. Rock-roses.
·135 Violariæ. Violets.
·137 Canellaceæ.
·138 Bixineæ.
·14 Polygalineæ.
·141 Pittosporeæ.
·142 Tremandreæ.
·143 Polygaleæ. Milkworts.
·145 Vochysiaceæ.
·15 Caryophyllineæ.
·151 Frankeniaceæ.
·152 Caryophylleæ. Pinks.
·153 Sileneæ.
·154 Alsineæ.
·155 Polycarpeæ.
·156 Portulaceæ. Purslanes.
·158 Tamariscineæ.
·16 Guttiferales.
·161 Elatineæ. Waterworts.
·162 Hypericineæ. St. John's-worts.
·163 Guttiferæ. Mangosteen. Gamboge.
·166 Ternstrœmiaceæ. Tea.
·167 Dipterocarpeæ.
·168 Chlænaceæ.
·17 Malvales. Malvaceæ. Mallows.
·18 Sterculiaeæ.
·19 Tiliaceæ. Limes. Linden.

DICOTYLEDONÆ—continued.

583·2	Geraniales.	
·21		Lineæ. Flax.
·213		Humiriaceæ.
·214		Malpighiaceæ.
·22		Zygophylleæ.
·223		Geraniaceæ. Geranium. Crane's bill.
·23		Rutaceæ. Rue.
·24		Simarubeæ.
·245		Ochnaceæ.
·247		Burseraceæ. Myrrh.
·25		Meliaceæ.
·255		Chailletiaceæ.
·26	Olacales.	
·261		Olacineæ.
·269		Ilicineæ (Aquifoliaceæ). Hollies.
·27	Celastrales.	
·271		Celastrineæ. Spindle-tree.
·274		Stackhousiæ.
·275		Rhamneæ. Buckthorn.
·279		Ampelidæ.
·28	Sapindales.	
·281		Sapindaceæ. Soapwort. Horse-chestnut.
·29		Sabiaceæ.
·292		Anacardiaceæ.
·297	Anomala.	
·298		Coriarieæ.
·299		Moringeæ.
·3	Rosales.	
·31		Connaraceæ.
·32		Leguminosæ. Peas. Beans.
·37		Rosaceæ. Roses. Plums. Apples. Mangoes.
·38		Saxifrageæ.
·39		Crassulaceæ. Houseleek. Stonecrop.
·393		Droseraceæ. Sundew.
·394		Hamamelidæ. Witch-hazel.
·396		Bruniaceæ.
·398		Halorageæ. Mare's-tails.
·4	Myrtales.	
·411		Rhizophoreæ. Mangroves.
·414		Combretaceæ.
·42		Myrtaceæ. Myrtles.
·43		Melastomaceæ.
·44		Lythrarieæ. Loosestrife.
·445		Onagrarieæ. Evening-primrose.
·45	Passiflorales.	
·451		Samydaceæ.
·453		Loaseæ.
·455		Turneraceæ.
·456		Passifloreæ. Passion-flower.
·461		Cucurbitaceæ. Gourds.
·468		Begoniaceæ.
·469		Datisceæ.
·47	Ficoidales.	
·471		Cacteæ.
·475		Ficoideæ.
·48	Umbellales.	
·481		Umbelliferæ.
·491		Araliaceæ. Ivy.
·497		Cornaceæ. Dogwood.

DICOTYLEDONÆ—continued.

583·5	Gamopetalæ.		
·51		Rubiales. Caprifoliaceæ. Honeysuckle.	
·52			Rubiaceæ. Madder.
·53		Asterales.	
·531			Valerianeæ.
·541			Dipsaceæ. Teazel.
·546			Calycereæ.
·55			Compositæ.
·57		Campanales, Stylidieæ.	
·58			Goodenoviæ.
·59			Campanulaceæ. Harebells
·6		Ericales.	
·61			Vacciniaceæ. Cranberry.
·62			Ericaceæ. Heaths.
·63			Monotropeæ.
·64			Epacrideæ.
·65			Diapensiaceæ.
·66			Lennoaceæ.
·67		Primulales.	
·671			Plumbagineæ. Thrifts.
·672			Primulaceæ. Primroses.
·677			Myrsineæ.
·68		Ebenales.	
·681			Sapotaceæ.
·685			Ebenaceæ. Ebony.
·686			Styraceæ.
·7		Gentianales.	
·71			Oleaceæ. Olive. Ash.
·716			Salvadoraceæ.
·72			Apocynaceæ.
·73			Asclepiadeæ.
·74			Loganiaceæ.
·75			Gentianeæ.
·76		Polemoniales.	
·761			Polemoniaceæ. Phlox.
·764			Hydrophyllaceæ.
·77			Boragineæ. Forget-me-not.
·78			Convolvulaceæ.
·79			Solanaceæ. Potato.
·8		Personales.	
·81			Scrophularineæ. Fig-wort.
·821			Orobanchaceæ. Broomrape.
·825			Lentibularieæ. Butterwort.
·829			Columelliaceæ.
·83			Gesneraceæ.
·84			Bignoniaceæ.
·85			Pedalineæ.
·86			Acanthaceæ.
·87		Lamiales.	
·871			Myoporineæ.
·876			Selagineæ.
·88			Verbenaceæ. Vervain.
·89			Labiatæ. Mint. Thyme. Sage. Dead-nettle.
·899		Ordo Anomolus. Plantagineæ.	
·9	Apetalæ.		
·91		Curvembryeæ.	
·911			Nyctagineæ.
·912			Illecebraceæ.
·913			Amarantaceæ.

DICOTYLEDONÆ—continued.

583·914	Chenopodiaceæ. Goose-foot.
·915	Phytolaccaceæ.
·916	Batideæ.
·917	Polygonaceæ. Buckwheat.
·92	Multiovulatæ Aquaticæ.
·921	Podostemaceæ.
·922	Multiovulatæ Terrestres. Nepenthacæ. Pitcher-plant.
·923	Cytinaceæ.
·924	Aristolochiaceæ.
·925	Micrembryeæ. Piperaceæ. Pepper.
·926	Chloranthaceæ.
·927	Myristiceæ. Nutmeg.
·928	Monimiaceæ.
·93	Daphnales.
·931	Laurineæ. Laurels.
·932	Proteaceæ,
·933	Thymelæaceæ. Mezereon.
·934	Penæaceæ.
·935	Elæagnaceæ. Oleaster.
·95	Achlamydosporeæ.
·941	Loranthaceæ. Mistletoe.
·943	Santalaceæ. Sandal-wood.
·947	Balanophoreæ.
·95	Unisexuales.
·951	Euphorbiaceæ. Spurge.
·96	Balanopseæ.
·962	Urticaceæ. Elm. Nettles. Hemp. Mulberry. Bread-fruit.
·97	Plantanaceæ. Plane.
·972	Leitnerieæ.
·973	Juglandeæ. Walnut.
·974	Myricaceæ. Bog myrtle.
·975	Casuarineæ.
·976	Cupuliferæ. Oak. Hazel. Beech.
·98	Anomali.
·981	Salicineæ. Willow.
·983	Lacistemaceæ.
·984	Empetraceæ.
·987	Ceratophylleæ.

584 Monocotyledonæ.

·1	Microspermeæ.
·11	Hydrocharideæ. Frogbit.
·13	Burmanniaceæ.
·15	Orchideæ. Orchids.
·2	Epigyneæ.
·21	Scitamineæ. Ginger.
·22	Bromeliaceæ.
·23	Hæmodoraceæ.
·24	Irideæ. Iris.
·25	Amaryllideæ.
·26	Taccaceæ.
·27	Dioscoreaceæ. Yam.
·3	Coronarieæ.
·31	Roxburghiaceæ.
·32	Liliaceæ.
·34	Pontederiaceæ.
·35	Philydraceæ.

MONOCOTYLEDONÆ—continued.

584·36	Xyrideæ.
·37	Mayaceæ.
·38	Commelinaceæ. Spiderwort.
·39	Rapateaceæ.
·4	Calycineæ.
·41	Flagellarieæ.
·45	Juncaceæ. Rushes.
·5	Palmæ.
·6	Nudifloreæ.
·61	Pandaneæ. Screw-pine.
·62	Cyclanthaceæ.
·63	Typhaceæ. Bulrushes.
·64	Aroideæ. Arum.
·68	Lemnaceæ. Duckweed.
·7	Apocarpeæ.
·71	Triurideæ.
·72	Alismaceæ.
·74	Naiadaceæ. Pondweed.
·8	Glumaceæ.
·81	Eriocauleæ.
·82	Centrolepideæ.
·83	Restiaceæ.
·84	Cyperaceæ. Sedges.
·9	Gramineæ. Grasses.
585	Gymnospermæ.
·1	Gnetaceæ.
·2	Coniferæ. Pines. Firs. Yews. Junipers.
·5	[Cordaiteæ.]
·9	Cycadaceæ.
·95	[Cycadofilices.] [Lyginodendron.] [Heterangium.]
586	**Cryptogamia.**
587	Pteridophyta (Vascular Cryptogams).
·1	Lycopodinæ.
·2	Lycopodiaceæ. Club-mosses. [Lepidodendron.] [Sigillaria.] [Stigmaria.]
·3	Psilotaceæ.
·4	Selaginellaceæ.
·5	Equisetinæ. Horsetails. [Calamites.]
·55	[Sphenophyllales.] [Sphenophyllum.]
·6	Filicineæ.
·61	Isoetaceæ.
·62	Ophioglossaceæ.
·63	Marattaceæ.
·64	Hydropterideæ.
·65	Filices. Ferns.
·7	Bryophyta.
·8	Musci. Mosses.
·9	Hepaticæ. Liverworts.
588	Thallophyta.
·1	Fungi. Mycology.
·105	Basidiomycetes.
·11	Autobasidiomycetes.
·12	Gasteromycetes.
·13	Hymenomycetes.

THALLOPHYTA—continued.

588·14	Protobasidiomycetes.
·15	Æcidiomycetes.
·155	Uredineæ. Rusts.
·16	Ustilagineæ. Smuts.
·17	Ascomycetes.
·175	Gymnoasceæ. Yeasts.
·18	Pyrenomycetes.
.19	Discomycetes.
·2	Phycomycetes.
·21	Oömycetes.
·22	Saprolegniaceæ.
·23	Peronosporaceæ.
·24	Ancylistaceæ.
·25	Zygomycetes.
·26	Entomorphthoraceæ.
·27	Mucorineæ.
·28	Chytridiaceæ.
·3	Myxomycetes. Mycetozoa
·4	Lichenes.
·5	Algæ. Seaweeds.
·55	Freshwater Weeds.
·6	Rhodophyceæ. Red Algæ.
·61	Porphyrineæ.
·62	Cryptoneminæ.
·63	Rhodymeninæ.
·64	Gigartininæ.
·65	Nemalioninæ.
·66	Phæophyceæ. Brown Algæ.
·661	Dictyotaceæ.
·67	Fucaceæ.
·675	Tilopteridaceæ.
·68	Cutleriaceæ.
·685	Laminariaceæ.
·69	Encœliaceæ.
.695	Ectocarpaceæ.
·7	Diatomaceæ.
·71	Chlorophyceæ. Green Algæ.
·72	Characeæ. Stoneworts.
·73	Siphoneæ.
·74	Confervoideæ. Desmids. Spirogyra.
·75	Volvocoideæ.
·76	Protococcaceæ.
·8	Cyanophyceæ. Blue-green Algæ.
	Bacteria. *See* 589·2.

589 Bacteriology.

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·095	Biography.

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·48 Inhibition of Growth. Poisons, Germicides, Antiseptics, &c.
·49 Mutual Influences. Metabiosis. Antibiosis.
·5 Applied Bacteriology.
·52 Air.
·54 Water and Sewage.
·56 Soils.
·57 Foods.
·58 Milk, Butter, Cheese.
·59 Vaccines, Serums.
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Pathogenic Protozoa. *See* 674·403.

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·202 Histology.
·21 Osteology. Skeletal System. Dentition.
·22 Muscular System.
·23 Nervous System and Organs of Sense.
·24 Circulatory System. Blood.
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·285 Rudimentary or Vestigial Organs, and Organs of uncertain Nature.
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·37 Alternation of Generations. Pædogenesis.
·38 Hermaphroditism.
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·51 Duration of Life. Longevity.
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·525 Functions of Special Organs and Structures.
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·55 Energetics. Movements.
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·59 Death.

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·61	Dispersal and Wandering.
·615	Fauna of Polar Regions.
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·64	,, Islands.
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·65	Freshwater Fauna.
·651	Fauna of Lakes.
·652	,, Rivers.
·653	,, Springs, Wells, Ponds, &c.
·66	Fauna of the Sea.
	Plankton. *See* 576·61.
·662	Pelagic Fauna.
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·666	Animals Extinct within Historical Times.
·67	Acclimatization.
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	Diseases of Animals. *See* 674·195.

591·8 Economic Zoology.

·81	Economic Products from Protozoa, Porifera, Cœlenterata, Echinodermata and Vermes.
·82	Sponge Fisheries.
·825	Coral Industry.
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·83	Economic Products from Arthropoda.
·835	Crabs and Lobsters.
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·853	Oyster Culture and Fisheries.
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591·857 Cuttle-fish, &c.
·859 Shells.
·86 Economic Products from Fish.
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·861 Fish Culture.
·862 Fisheries.
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·864 Sea Fisheries.
·865 Herring Fishery.
·866 Freshwater Fisheries.
·867 Salmon Fishery.
·868 Diseases and Pests of Fish.
·87 Economic Products from Reptiles and Batrachians. Tortoiseshell.
·88 Economic Products from Birds and Mammals.
·882 Feathers.
·884 Skins, Hides, Furs, Hair, Horsehair.
Wool. *See* 675·525.
·89 Whaling.
·892 Hunting, Shooting and Trapping.
·894 Game Laws.
·896 Game and Bird Protection and Preservation.
·899 Economic Zoology of Different Countries.
[Arranged by adding the Topographical numbers, 990–999, with "99" omitted, to 581·899, *e.g.*, Great Britain, 990·5—Fisheries of Great Britain, 581·89905.]

591·9 **Geographical Distribution of Animals.** Zoology of Different Countries. *See also* 508.
[Arranged according to Topographical numbers, 990-999, by omitting the "99" and adding the rest to 591·9, *e.g.*, Australia, 996·3—Zoology of Australia, 591·963.
Numbers preceded by a colon ":" following these represent the Zoological classification, 593 to 599 with "59" omitted.]

592 **Taxonomy. General Systematic Zoology.**
·1 Nomenclature.

593 **Invertebrata.**
[Figures in parentheses, following the Zoology numbers represent Topographical divisions, 990–999, with "99" omitted.]
·1 Protozoa. Porifera. Cœlenterata. Echinodermata.
·11 Protozoa.
·14 Rhizopoda.
·15 Foraminifera.
·16 Radiolaria.
·17 Sporozoa. Gregarinida.
·18 Infusoria. Flagellata. Ciliata.

INVERTEBRATA—continued.

593·2 Porifera. Sponges.
·21 Calcarea.
·25 Non-calcarea. Hexactinellida.

·3 Cœlenterata.
·4 Hydrozoa. Hydrocorallina. Siphonophora. Hydromedusæ. Freshwater Polypes, Zoophytes.
·47 [Graptolithida.] [Graptolites.]
·5 Scyphozoa. Acalephæ. Medusæ. Jelly-fish.
·6 Actinozoa (Anthozoa). Sea-anemones, Coral Polypes.
·61 Zoantharia. Actiniaria. Madreporaria. Antipatharia [Tetracoralla]. Hexacoralla [Tabulata]. Perforata. Aporosa.
·62 Alcyonaria. Alcyonacea. Gorgonacea. Pennatulacea. Octocoralla. Sea-fans, Sea-pens, Dead-men's-fingers.
·7 Ctenophora. Comb-jellies.

·8 Echinodermata.
·81 Asteroidea. Starfish.
·82 Ophiuroidea. Brittle-stars.
·83 Echinoidea. Sea-urchins.
·84 Holothuroidea. Sea-cucumbers, Sea-slugs.
·85 Crinoidea. Sea-lilies, Feather-stars.
·86 [Cystoidea.]
·87 [Blastoidea.]
594 Vermes.
·1 Platyhelminthes. Flat Worms.
·11 Turbellaria. Flukes, Planarians.
·12 Trematoda.
·13 Cestoda. Tape-worms.
·14 Nemertinea.
·2 Nemathelminthes.
·21 Nematoda. Round Worms.
·22 Acanthocephala. Hook-headed Worms.
·23 Chætognatha. Arrow Worms.
·3 Annelida.
·31 Chætopoda.
·32 Polychæta. Marine Annelids. Polygordius.
·33 Oligochæta. Earthworms.
·34 Hirudinea. Leeches.
·35 Gephyrea.
·36 Rotatoria. Rotifers.

·4 Arthropoda.
·5 Crustacea.
·51 Entomostraca.
·511 Phyllopoda. Branchiopoda. Cladocera.
·512 Ostracoda.
·513 Copepoda. Water-fleas, Fish-lice.
·514 Cirripedia. Barnacles.
·52 Malacostraca.
·521 Phyllocarida. Leptostraca.
·522 Schizopoda.
·53 Decapoda.
·531 Macrura. Prawns, Shrimps, Lobsters, Crayfish, Hermit Crabs.
·535 Brachyura. Crabs.

- ARTHROPODA—continued.
  - 594·54 Stomatopoda.
  - ·55 Cumacea.
  - ·56 Arthrostraca.
    - ·561 Amphipoda. Freshwater Shrimps, Sand-hoppers.
    - ·562 Isopoda. Wood-lice.
  - ·57 [Trilobita.]
  - ·6 Onychophora. Peripatus.
  - ·7 Myriapoda. Centipedes and Millipedes.
  - ·8 Insecta.
    - ·81 Aptera. Collembola. Thysanura. Spring-tails, Silver-fish.
    - ·82 Orthoptera. Earwigs, Cockroaches, Stick-insects, Leaf-insects, Grasshoppers, Locusts.
    - ·83 Neuroptera. White Ants, May-flies, Dragon-flies, Ant-lions, Caddis-flies.
    - ·84 Hemiptera. Bugs, Lice, Water-bugs, Scale-insects, Plant-lice, Cicadas.
    - ·85 Diptera. Fleas, Gnats, Mosquitoes, House-flies, Blow-flies, Bot-flies, Crane-flies, Daddy-long-legs.
    - ·86 Lepidoptera. Butterflies, Moths.
    - ·87 Coleoptera. Beetles.
    - 88 Hymenoptera. Wasps, Bees, Ants, Gall-flies, Ichneumons.
  - ·9 Arachnida.
    - ·91 Scorpionida. Scorpions.
    - ·92 Pseudoscorpionida. Book-scorpions.
    - ·93 Pedipalpi. Scorpion-spiders.
    - ·94 Solpugidæ.
    - ·95 Phalangidæ. Harvestmen.
    - ·96 Araneidæ. Spiders.
    - ·97 Acaridæ (Acarina). Mites, Ticks.
    - ·975 Xiphosura. King-crabs.
    - ·977 [Eurypterida.]
    - ·98 Pycnogonida. Tardigrada. Pentastomida. Pantopoda.
- 595 Mollusca.
  - ·1 Pelecypoda (Lamellibranchiata). Bivalves. Oysters, Mussels, Freshwater Mussels, Cockles.
  - ·2 Amphineura. Solenogastres. Chitons.
  - ·3 Gastropoda. Univalves.
    - ·31 Streptoneura. Prosobranchia.
      - ·311 Aspidobranchia. Limpets, Ear-shells.
      - ·315 Pectinibranchia. Cowries, Tritons, Vermetes, Whelks, Cones.
    - ·32 Euthyneura.
      - ·321 Opisthobranchia. Pteropoda. Sea-hares.
      - ·325 Pulmonata. Land-snails, Slugs.
  - ·4 Scaphopoda. Tooth-shells.
  - ·5 Cephalopoda.
    - ·51 Dibranchiata. [Belemnites], Cuttle-fish, Squids, Spirula, Octopi, Argonauts.
    - ·52 Tetrabranchiata. [Ammonoidea], [Ammonites], Nautilus.

MOLLUSCA—continued.

595·6 Molluscoida.
·61 Bryozoa (Polyzoa). Sea Mats, Corallines, Phoronis.
·62 Brachiopoda. Lamp-shells.

·7 Chordata.
·8 Pharyngopneusta (Adelochorda). (Hemi-chordata) Balanoglossus, Cephalodiscus, Rhabdopleura.
·9 Tunicata (Urochorda). Salpæ, Thaliacea, Pyrosoma, Ascidians, Sea-squirts.

596 Vertebrata.

·1 Acrania. Amphioxus (Lancelet).

·2 Cyclostomata.
·21 Petromyzontidæ. Lampreys.
·22 Myxinoidei. Hags or Slime-eels.

·3 Pisces. Fish.
·4 Elasmobranchii. Sharks, Dog-fish, Rays.
·5 Holocephali.
·6 Teleostomi.
·61 Ganoidei.
·62 Crossopterygii. Polypterus. Calamoichthys.
·63 Chrondrostei. Sturgeons.
·64 Holostei. Bony Pikes.
·65 Teleostei. True Bony Fishes.
·651 Physostomi. Cat Fish or Siluroids, Carp, Gudgeon, Loach, Pike, Salmon, Trout, Smelt, Grayling, Herring, Anchovy, Eel.
·652 Anacanthini. Cod, Haddock, Whiting, Hake, Ling, Flat-fish as Sole, Turbot, Plaice, &c.
·653 Acanthopteri. Perch, Stickleback, Sea-bream, Mullet, Mackerel, Gurnard.
·654 Pharyngognathi. Wrasses.
·655 Plectognathi. File Fish, Globe Fish, Sunfish, Cofferfish.
·656 Lophobranchii. Sea-horses. Pipe Fish.
·7 Dipnoi. Ceratodus. Mud-fish. Protopterus. Lepidosiren.
·8 [Ostracodermi.] [Pteraspis], [Cephalaspis], [Pterichthys].
·9 Batrachia (Amphibia).
·91 Caudata. Urodela. Salamanders, Newts, Efts.
·92 Ecaudata. Anura. Frogs, Toads.
·93 Apoda. Gymnophiona.
·94 [Stegocephala.] [Labyrinthodontia].

597 Reptilia.
·1 Rhynchocephalia. Hatteria.
·2 Squamata.
·21 Lacertilia. Lizards.
·22 Ophidia. Snakes, Vipers, Pythons, Boas.
·23 [Pythonomorpha.]
·3 Chelonia. Tortoises, Turtles.
·4 [Theromorpha.] [Anomodontia].

REPTILIA—continued.

597·5	Crocodilia. Crocodiles, Alligators, Gavials, Caimans.
·6	[Plesiosauria.] [Sauropterygia].
·7	[Ichthyosauria.] [Ichthyopterygia].
·8	[Dinosauria.] [Deinosauria].
·9	[Pterosauria.] [Ornithosauria], [Pterodactyles.]
598	Aves. Ornithology.
·05	Oölogy. Birds' Eggs.
·1	[Archæornithes.] [Saururæ], [Archæopteryx.]
·2	Neornithes.
·3	Ratitæ.
·31	Megistanes. Emus, Cassowaries, Kiwis, Moas.
·32	Rheæ. South American Ostriches.
·33	Struthiones. Ostriches.
·34	[Æpyornithes.]
·35	[Gastornithes.]
·4	Carinatæ.
·41	[Stereornithes.]
·42	[Odontolcæ.] [Hesperornis.]
·43	[Ichthyornithes.] [Odontormæ.]
·44	Pygopodes. Divers, Grebes.
·45	Impennes. Penguins.
·46	Turbinares. Petrels, Albatrosses, Shearwaters.
·47	Steganopodes. Gannets, Frigate-birds, Cormorants, Pelicans.
·48	Herodiones. Herons, Storks, Flamingoes, Ibises, Spoonbills.
·49	Anseres. [Odontopteryx], Geese, Ducks, Swans, Mergansers, Screamers.
·5	Accipitres. Eagles, Falcons, Vultures.
·51	Crypturi. Timanous.
·52	Gallinæ. Fowls, Pheasants, Grouse, Brush-turkeys.
·53	Grallæ. Rails, Cranes, Bustards.
·6	Gaviæ. Gulls, Terns, Auks.
·61	Limicolæ. Plovers, Curlews, Oyster-catchers.
·63	Pterocletes. Sandgrouse.
·7	Columbæ. Pigeons, Doves, Dodo.
·73	Psittaci. Parrots, Parrakeets, Cockatoos, Lories, Macaws.
·75	Striges. Owls.
·8	Picariæ. Cuckoos, Rollers, Motmots, Bee-eaters, Kingfishers, Hoopoes, Goat-suckers, Trogons, Swifts, Humming-birds, Woodpeckers, Hornbills.
·9	Passeres. Larks, Starlings, Finches, Crows, Lyrebird, Swallows, Blackbirds, Thrushes, Birds of Paradise.
599	Mammalia.
·1	Prototheria. Monotremata. Duck-billed Platypus (Ornithorhynchus), Spiny Anteater (Echidna).

MAMMALIA—continued.

599·2 Metatheria (Marsupialia). Opossums, Kangaroos, Bandicoots, Wombats, Phalangers.

·3 Eutheria.

·4 Edentata. [Glyptodons], [Megatheriums], Sloths, American Anteaters, Armadillos, Scaly Anteaters, Cape Anteaters.

·45 Sirenia. Dugongs, Manatees.

·5 Cetacea. Baleen Whales, Sperm Whales, Killers, Porpoises, Dolphins.

·6 Ungulata.
·61 Ungulata Vera.
·62 Artiodactyla. Ruminants, Camels, Oxen, Sheep, Goats, Antelopes, Giraffes, Deer, Pigs, Peccaries, Hippopotami.
·63 Perissodactyla. Horses, Asses, Zebras, Tapirs, Rhinoceri.
·631 [Liptoterna.]
·635 [Astrapotheria.]
·64 Subungulata.
·641 Hyracoidea.
·645 [Pyrotheria.]
·65 Proboscidea. [Mammoths], [Mastodons]. Elephants.
·66 [Amblypoda.] [Dinocerata.]
·67 [Condylarthra.]
·68 [Toxodontia.]
·69 [Tillodontia.]

·7 Rodentia. Rats, Mice, Hares, Rabbits, Squirrels, Jerboas, Beavers, Porcupines.

599·8 Carnivora.

·81 Carnivora vera. Cats, Lions, Civets, Hyænas, Dogs, Bears, Weasels, Otters.
·83 Pinnipedia. Eared Seals, Seals, Walruses.
·85 [Creodonta.]

·86 Insectivora. Moles, Shrews, Hedgehogs.

·87 Cheiroptera. Bats.

·9 Primates.
·91 Prosimii. Lemurs, Aye-ayes.
·92 Anthropoidea.
·93 Hapalidæ. Marmosets.
·94 Cebidæ. Monkeys.
·95 Cercopithecidæ. Baboons, Macaques.
·96 Simiidæ. Gibbons, Orang-outangs, Chimpanzees, Gorillas.
Hominidæ. *See* 577.

600. APPLIED SCIENCE (GENERAL).

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·9 History of Anatomy and Physiology.
·95 Biography.

611 Human Anatomy.

Histology. *See* 591·202.
·1 Osteology.
·2 Muscular System.
·3 Nervous System.
·35 Organs of Sense.

ANATOMY—continued.

611·4 Circulatory System. Vascular System.

·49 Glandular and Lymphatic System. Endocrine Glands.

·5 Respiratory System.

·6 Digestive System.

·7 Urinary System. Generative Organs. Breasts.

·8 Integument.

·9 Regional Anatomy.

Monstrosities. *See* 577·89.

612 Physiology.

·1 Practical Physiology.

·11 Plans, Fittings, &c., of Physiological Laboratories.

·12 Apparatus in General.

·2 Physiological Chemistry. Bio-chemistry.

·21 Practical Physiological Chemistry.

·219 Analysis of Animal Products.

·22 Constituents of the Organism.

Carbohydrates, Glucosides. *See* 545·5.

·23 Lipins. Fats, Oils, Waxes, Phosphatids, Sterols.

·24 Proteins. Albumen, Peptones, Nucleoproteins, Mucins. *See also* 546·9.

·243 Animal. Hæmoglobin.

·245 Vegetable. Chlorophyll.

·25 Pigments. Bilirubin, Melanins, Lipochromes, Visual Purple.

·259 Miscellaneous Substances.

·26 Fermentation.

·27 Enzymes, Co-ferments, Anti-ferments.

Fermentation Industries. *See* 647·5.

·28 Pathologic Changes. Immunity.

·285 Toxins. Anti-toxins.

·29 Relation of Physiological Properties, Taste, Odour, &c., to Chemical Constitution. *See also* 615.

Foods. *See* 613·4.

·3 Physiology of the Organism as a Whole.

Text-Books. *See* 612.

·31 Duration of Life. *See also* 575·1 *and* 591·51.

·34 Influence of Environment. Chemotaxis, Galvanotaxis, High Altitudes.

·36 Changes during Life. Growth, Puberty, Senescence, Degeneration.

PHYSIOLOGY—continued.

612·39	Death.
	Action of Physical Agents on Organism. *See* 575·2.
	Action of Chemical Agents on Organism. *See* 615·3.
	Physiology of Cell and Unicellular Organisms. *See* 572·7.
·4	Reproduction.
·41	Fertilization.
·42	Embryo, Fœtus and Newly Born.
·43	Gestation. Parturition.
·44	Mammary and allied Functions.
	Production of Sex. *See* 591·34.
·45	Neuro-muscular System.
·46	Muscle.
·47	Mechanics of Animal Mechanisms. Special Motor Mechanisms.
·48	Larynx. Voice.
·485	Functions of Joints.
·487	Fatigue.
·489	Principles of Industrial Management. Efficiency of Rates and Periods of Working.
·49	Electrophysiology.
·493	Electrical Organs.
·496	Plants.
·5	Nervous System.
·51	Brain.
·515	Memory.
·52	Sleep.
·53	Spinal Chord.
·54	Nerves.
·55	Senses. Sensation.
·56	Cutaneous Senses. Temperature, Pressure, Touch, Tactile Space Perception.
·565	Sense of Movement.
·57	Taste.
·575	Smell.
·58	Hearing.
·585	Labyrinthine Sense, Equilibration.
·59	Vision.
·595	Colour Vision. Colour Blindness.
·6	Blood and Circulatory System.
·61	Blood.
·63	Circulation of the Blood. Blood Pressure. Pulse.
·65	Heart.

PHYSIOLOGY—continued.

612·67 Blood Vessels.
·69 Lymphoid Structures. Lymph.
·7 Respiration and Animal Heat.
·71 Neuro-muscular Respiratory Mechanism.
·73 Chemistry of Respiration.
·75 Physiology of Respiratory Passages. Nose. Bronchi.
·77 Lungs.
·79 Animal Heat.
·8 Digestion. Absorption. Metabolism.
·81 Mouth, Pharynx, Œsophagus.
·82 Salivary Glands.
·83 Stomach.
·84 Intestines. Fæces.
·85 Pancreas. Spleen.
·86 Liver.
·87 Endocrine Glands. Hormones.
·88 Digestion and Absorption. Vitamines.
Food. *See* 613·4.
·89 Metabolism.
·9 Urinary Apparatus. Skin.
·92 Kidney.
·94 Neuro-muscular Mechanism.
·96 Urine.
·98 Skin.

613. HYGIENE.

613·01 Works on Hygiene published before 1800.
·015 Bibliography.
·02 Text Books.
·03 Dictionaries and Encyclopædias.
·04 Essays, Lectures and Addresses.
·05 Journals.
·06 Transactions of Societies.
·065 Congresses.
·067 Exhibitions.
·07 Teaching of Hygiene.
·08 Collected Works.
·09 History of Hygiene.
·095 Biography.

613·1 Hygiene of the Atmosphere, Soil and Climate.
·11 Hygiene of the Atmosphere.
Air Pollution. *See* 614·51.
·12 Hygiene of Light and Warmth.
Heating. *See* 622·71.
Lighting. *See* 622·9.
Ventilation. *See* 622·8.

HYGIENE OF THE ATMOSPHERE, SOIL AND CLIMATE—continued.

613·13	Hygiene of the Soil. Soil Moisture. Building Sites.
	Hygiene of Water Supply. *See* 623·59.
·15	Hygiene and Climate. Health Resorts.
·16	Tropical Hygiene.
·17	Hygiene of Travel and Exploration.
613·2	**Personal Hygiene.**
·21	Exercise. Gymnastics. Athletics. Training and Overstrain.
·22	Clothing.
·23	Habits. Cleanliness. Baths.
	Insect Pests. *See* 674·41.
·24	Hygiene of Nervous System.
·25	Alcoholism. Teetotalism.
·26	Drugs.
	Occupation. *See* 614·6.
613·3	**Domestic Economy.**
·31	Domestic Hygiene, Medicine and Nursing.
·33	Dwellings. House Furnishing.
·35	Household Management.
·39	Pneumatic Dust Removal.
613·4	**Food.** Composition, Energy Value, Nutritive Value, Digestibility.
·41	Fasting, Starvation, Excess of Food, Nutritional Diseases.
·43	Dietaries. Dietary Experiments. Food Value Tests.
	Food Poisons. *See* 615·49.
·5	Animal Foods.
·51	Meat, Poultry, Game.
·52	Fish.
·53	Gelatin.
·54	Dairy products.
·55	Milk.
·56	Butter.
·565	Margarine.
·57	Cheese.
·58	Eggs.
·59	Prepared Foods. Meat Extracts.
·6	Vegetable Foods.
·61	Vegetarianism.
·62	Cereals. Bread, Flour.
·63	Fruits.
·64	Nuts.
·65	Vegetables.
·655	Sugar.
·66	Other Foods and Condiments.
·663	Water.
·665	Salts.

FOOD—continued.

613·67	Beverages.
·68	Alcoholic beverages.
	Alcoholism. *See* 613·25.
·683	Non-alcoholic Beverages.
·685	Aerated Waters.
·687	Tea, Coffee, Cocoa.
·69	Condiments.
·7	Food Analysis and Adulteration.
·8	Preservation of Food.
·81	Tinning.
·83	Chemical Treatment. Preservatives.
	Cold Storage. *See* 641·43.
·9	Cookery.
·91	Cookery Books.
·93	Catering.
·95	Processes. Boiling, Frying, Stewing, &c.
·96	Baking. Confectionery.

614 Public Health.

[General sections in 613·01–613·095 except the following:—]

·02	Treatises.
·024	Reports of Boards or Ministries of Health.
	[Divided geographically.]
·029	Legislation.
·0292	State Control of Medicine.
·0296	Employers' Liability.
·1	Housing and City Planning.
·15	Dwellings.
·2	Contagious and Infectious Diseases.
·21	Modes of Propagation and Communication.
	Injurious Animals and Insect Pests. *See* 674·4, &c.
·22	Prevention and Restriction. Quarantine.
·23	Protective Inoculation. Vaccination.
·24	Disinfection. Disinfectants.
·25	Special Diseases.
·26	Anthrax.
·27	Hydrophobia.
·28	Venereal Diseases.
·29	Epidemic Diseases. Plagues.
·3	Disposal of the Dead.
·31	Burial.
·33	Cremation.
·4	Registration and Vital Statistics.
·41	Births.
·43	Deaths.
·44	Mortality at Different Ages.
·45	Marriages.

PUBLIC HEALTH—continued.

614·49 Population. Census Reports of Different Countries.
[Arranged by adding the Topographical numbers, 990–999, with "99" omitted, to 614·49, *e.g.*, United States, 994·6—Census Reports of the United States, 614·4946.]
·5 Nuisances.
·51 Air Pollution by Dust and Smoke.
·515 Smoke Prevention.
·53 Air Pollution by Noxious Gases. Chemical Works.
·54 Slaughter Houses. Abattoirs.
·55 Storage and Handling of Offensive Materials.
·56 Cesspools.
Disposal and Utilisation of Waste. *See* 623·9.

614·6 Hygiene of Employment.

·61 School Hygiene. Medical Inspection of Schools.
·62 Industrial Hygiene. Injurious Occupations.
·63 By Inhalation of Vapours, Gases and Dust, or Absorption of Poisonous Substances.
·65 By High, Low or Variable Temperature.
·66 By Overuse of Certain Organs or Constrained Positions. Sedentary Occupations.
Fatigue. *See* 612·487.
Length of Working Day. *See* 612·489.
Naval Hygiene. *See* 694·7.
Military Hygiene. *See* 695·6.
·68 Prison Hygiene.
Hygiene of Travel and Exploration. *See* 613·17.
·7 Accidents. Safety Devices.
Special Accidents. *See Subject.*
·71 Drowning.
Safety of Life at Sea. *See* 529·78.
·72 Suffocation.
·73 Explosions.
Boiler Explosions. *See* 625·499.
·74 Fires.
·75 Fire Alarms. Automatic Sprinklers. Chemical Systems. Fire Hand Pumps.
·76 Fire Engines. Hydrants.
·77 Life Saving at Fires. Fire Escapes.
·78 Salvage.
·79 First Aid. Ambulance.

HYGIENE OF EMPLOYMENT—continued.

614·9	Sanitary Conditions and Public Health of Special Areas, including Official Reports. [Arranged geographically by adding the Topographical numbers, 990–999, with "99" omitted, to 614·9, *e.g.*, London, 990·61—Reports on the Sanitary Conditions of London, 614·9061.]

615 Pharmacology, Materia Medica, Therapeutics.

·01	Works on Pharmacology published before 1880.
·015	Bibliography.
·02	Text Books.
·03	Dictionaries and Encyclopædias.
·04	Essays, Lectures and Addresses.
·05	Journals.
·06	Transactions of Societies.
·065	Congresses.
·067	Exhibitions.
·07	Teaching of Pharmacology.
·08	Collected Works.
·09	History of Pharmacology.
·095	Biography.
·1	Practical Pharmacy.
·2	Materia Medica.
·21	Pharmacopeias.
·22	Inorganic Drugs.
·23	Organic Drugs.
·29	Analysis of Drugs and Medicines.
·3	Therapeutics.
·33	Homœopathy.
·35	Hypnotism. Animal Magnetism. Mesmerism.
·4	Toxicology.
·41	Gaseous Poisons.
·43	Inorganic Poisons.
·45	Organic Poisons.
·47	Alkaloids.
·49	Ptomaines. Food Poisons.
·5	Medical Jurisprudence.
·6	Forensic Chemistry.

616 Medicine and Pathology.

·026	Medical Museums.
·07	Medical Education.
·1	Hospitals.
·2	Surgery.
·5	Dentistry. Radiography. *See* 571·7.

620. ENGINEERING.

620·1 Works on Engineering published before 1800.
·15 Bibliography.
·2 Text Books (General and Civil Engineering).
Mechanical Engineering. *See* 624.
Pocket Books. *See* 622·021.

·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·69 General Official and Miscellaneous Engineering Reports from Different Countries.
[Arranged according to countries by adding the Topographical numbers, 990–999, with "99" omitted, to 620·69.]
·7 Teaching of Engineering.
·8 Collected Works.
·9 History of Engineering.
History of the Steam Engine. *See* 625·09.

·95 Biography.

621 Mechanics of Structures.

·1 Graphic Statics.
·13 Theory of Bridges and Roofs.
·15 Theory of Arches and Vaults.

621·2 Materials of Construction.

·3 Testing and Strength of Materials.
·31 Engineering and Testing Laboratories.
·33 Apparatus.
·4 Wood. Strength and Testing.
Timber. *See* 581·77 *et seq.*

·5 Masonry Materials.
·51 Stone. Strength and Testing.
Building Stones. *See* 651·4 *et seq.*

·53 Bricks, Tiles, Terra-cotta. Strength and Testing.
Bricks, &c. *See* 642·66.

·55 Cement, Lime, Mortar, Concrete. Strength and Testing.
Cements. *See* 642·4 *et seq.*

·57 Reinforced Concrete. Strength and Testing.
·6 Metals. Strength and Testing.
·62 Corrosion of Metals.
·63 Iron and Steel. Strength and Testing.
·64 Wrought Iron. Strength and Testing.
·65 Cast Iron. Strength and Testing.

MATERIALS OF CONSTRUCTION—continued.
621·66 Steel. Strength and Testing.
·67 Corrosion of Iron and Steel, and Protection against Corrosion.
·68 Alloys. Strength and Testing.
·7 Glass.
·8 Other Materials.
·95 Engineering Standards.

622 Structural Engineering.

·021 Pocket Books.
·023 Tables.
·029 Legislation. Building Laws.

·1 Wooden Construction.
·11 Masonry Construction.
·12 Cement and Concrete.
·13 Reinforced Concrete.
·14 Iron and Steel Construction.
·15 Earthwork. Excavating. *See also* 655·32.
·16 Embankments. Retaining-walls.
·165 Earth-pressure on Walls.
·17 Foundations.
·175 Pile Driving.
·18 Waterproof Construction.
·19 Wind-pressure in Relation to Structural Engineering.
·195 Special Forms and Shapes of Wood and Metal. Girders, Beams, Angles, Nails.
Wire. *See* 681·35.

622·2 Building Construction.

·21 Drawings.
·22 Prices. Estimates.
Woodwork. *See* 622·1.
Masonry. *See* 622·11.
Concrete. *See* 622·12.
Reinforced Concrete. *See* 622·13.
Iron and Steel. *See* 622·14.
·25 Fireproof Construction.
·26 Fire Tests.
·27 Anti-earthquake Construction.
·3 Structural Details.
Beams and Girders. *See* 622·195.
·31 Foundations. *See also* 622·17.
·315 Piers.
·32 Arches and Vaults. Domes.
·33 Walls. Abutments.
·34 Columns.
·345 Windows and Doors.
·35 Chimneys, Flues, Mantelpieces.
Fire-places. *See* 622·73.

Building Construction—continued.

622·37	Floors.
·38	Roofs.
·381	Thatch.
·383	Slate.
·385	Tile.
·387	Other Roofs.
·39	Ceilings and Mouldings.
·4	Buildings for Special Purposes.
·41	Chimney Stacks.
·415	Churches. Theatres. Halls.
·42	Dwelling-houses.
·43	Educational Buildings. Colleges. Schools.
·44	Factories. Mills.
·45	Hospitals. Asylums.
·46	Museums. Libraries.
·47	Power Plant.
·475	Prisons. Reformatories.
·48	Warehouses.
·49	Other Buildings.
·5	Inspection of Building Construction, Maintenance and Repair.
·51	Supervision and Inspection of Building Construction.
·53	Maintenance and Repair of Buildings.
·55	Protection of Buildings from Damp. Waterproof Construction. *See* 622·18.
·57	Protection of Buildings from Lightning. Lightning-rods. Fires. *See* 614·74.
·59	Building Accidents. Safety Devices.
·6	Building Trades.
·61	Scaffolding.
·615	Stone-masonry and Stone-cutting.
·62	Bricklaying. Tile-laying.
·63	Carpentry. Joinery. Stair-building.
·64	Plumbing and Pipe Fitting.
·65	Gas Fitting.
·66	Plastering, Whitewashing.
·67	Glazing, Painting, Varnishing and Wall Decoration.
·68	Decorative Woodwork.
·7	Heating, Ventilation and Lighting.
·71	Heating of Buildings (including Cooking Stoves).
·72	Radiative and Convective Heating.
·73	Fire-places.
·735	Oil Stoves.
·74	Gas Fires.

BUILDING CONSTRUCTION—continued.

622·75	Closed Stoves.
	Electric Heating. *See* 635.
·76	Central Heating.
·77	Hot Water.
·78	Steam.
·79	Hot Air Heating.
·8	Ventilation.
·9	Lighting.
·91	Gas Lighting.
·93	Incandescent Gas.
·95	Acetylene.
·97	Oil Lighting.
	Electric Lighting. *See* 634.

623 Road Engineering.

·029	Legislation.
·1	Construction.
	Surveying. *See* 528·71.
·11	Drawings.
·113	Materials for Road Making. *See also* 651·4.
·115	Foundations.
·117	Drainage.
·12	Roads.
·125	Gravel.
·13	Broken Stone.
	Stone Crushers. *See* 655·93.
·135	Macadam Roads.
·14	Paved Roads.
·15	Wood.
·155	Brick.
·157	Stone.
·16	Asphalt.
·165	Asphalt Mixing Machinery.
·169	Concrete, Cement.
·17	Other Roads.
·18	Foot Paths.
·19	Road Maintenance and Repair.
·193	Rolling. Road Rollers.
·194	Road Binders. Tarring. Dust Prevention.
·199	Street Accidents. Safety Devices.

623·2 Bridge Engineering.

·209	Legislation.
	Theory of Bridges. *See* 621·13.
·21	Bridge Construction and Design.
·211	Drawings.
·217	Wind-pressure.
·22	Foundations.
·225	Abutments, Retaining-walls. *See also* 622·16 *and* 622·33.

Bridge Engineering—continued.

623·23	Bridge Details, Bearings, &c.
·24	Arches. Arched Bridges.
·25	Oblique Arches.
·26	Masonry Bridges.
·27	Concrete Bridges.
·28	Beams and Girders. *See also* 622·195.
·283	Continuous Girders.
·285	Plate Girder Bridges.
·29	Trestles.
·293	Wood.
·295	Iron.
·3	Trusses and Trussed Bridges.
·31	Wood.
·33	Iron and Steel.
·35	Cantilever Bridges.
·37	Tubular Bridges.
·39	Suspension Bridges.
·4	Bridges for Special Purposes.
·41	Movable Bridges. Drawbridges.
·43	Highway Bridges.
·45	Ornamental Bridges.
·47	Railway Bridges and Viaducts. Culverts.
	Military Bridges. *See* 695·72.
·49	Bridge Inspection, Maintenance and Repair.
·491	Inspection and Testing.
·493	Maintenance and Repair.
·499	Accidents. Safety Devices.
623·5	**Sanitary and Municipal Engineering.**
·51	Water Supply.
	Sources. *See* 652·98.
·53	Reservoirs. Tanks. Dams. *See also* 628·65.
·54	Wells.
·55	Artesian Wells.
·59	Pollution and Impurities from Surface Drainage.
·6	Purification of Water Supply.
·61	Mechanical Treatment and Bacterial Purification.
	Sedimentation. *See* 623·836.
·62	Natural Filtration.
·63	Sand Filtration. Filter Basins and Plant.
·64	Mechanical Filters.
·65	Domestic Filters.

SANITARY AND MUNICIPAL ENGINEERING—continued.

623·66	Aëration. Ozone Treatment.
·67	Copper Sulphate, Chlorine and Hypochlorite Treatment.
·675	Disinfection of Mains and Wells.
·68	Removal of Chemical Impurities.
·681	Water Softening.
·683	Lime, Soda and Barium Carbonate Process.
·685	Permutite Process.
·689	Other Methods.
·69	Preparation and Purification of Water for Technological Use. Removal of Iron, Manganese, Carbonic Acid, &c.
·7	Distribution.
	Reservoirs. *See* 623·53.
·71	Aqueducts.
·72	Waterworks.
	Pumping Machinery. *See* 625·64.
·73	Water Towers. Stand-pipes.
·74	Water-mains. Pipes.
·75	Water Waste. Prevention.
·76	Water-meters.
·77	Water Examination and Analysis.
·78	Chemical.
	Bacteriological. *See* 589·54.
·8	Sewage Disposal.
	Pumps. *See* 625·64.
·81	Sewerage Systems. Sewers.
·82	Discharge into Streams. River Pollution.
·83	Purification of Sewage.
·833	Mechanical Processes.
·836	Sedimentation Tanks, Septic Tanks.
·84	Bacterial Purification.
·85	Artificial Biological Methods. Contact Beds. Percolating Filters. Distributors.
·86	Land Treatment.
·863	Sewage Farming. Irrigation Treatment.
·866	Intermittent Sand Filtration.
·87	Disposal and Utilization of Sewage Residues.
·875	Gasification.
88	Purification of Industrial Sewage.
·89	Other Methods of Sewage Disposal.
·899	Sewage Analysis.

SANITARY AND MUNICIPAL ENGINEERING—continued.

623·9	Refuse Disposal and Utilization.
·91	Disposal of Municipal Waste.
·911	Ashes.
·913	Garbage.
·915	Destructors.
·917	Animal Waste.
·918	Street Cleaning.
·92	Disposal of Factory and Trade Waste.
·94	Industrial Sanitation.
·95	Domestic Sanitation.
·96	Water Supply. Hot and Cold Water Systems.
·97	House Drainage.
·975	Sanitary Inspection.
·98	Rural Sanitation.
·99	Washouses and Public Laundries.
624	**Mechanical Engineering.**
·021	Pocket Books.
·023	Tables.
·025	Popular Books on Machines.
·029	Legislation.
·1	Applied Mechanics.
·2	Theory of Mechanism. Mechanical Movements. Kinematics of Machinery.
·3	Link Motions.
·4	Toothed Gearing. Gear Cutting Machines. *See* 625·781.
·41	Spur and Annular Gears. Racks.
·42	Bevel Gears.
·43	Stepped, Helical and Skew Bevel Gears.
·44	Worm Gears.
·45	Epicyclic Gears.
·46	Other Toothed Gears.
·47	Other Gears. Chain Gearing. *See* 625·756. Rope Gearing. *See* 625·755. Reduction Gearing. *See* 625·758. Variable Speed Gearing. *See* 625·759.
·5	Cams.
·55	Springs.
·6	Automatic Devices.
·7	Special and Curious Devices. Automata.
·8	Perpetual Motion Machines.
·9	Machine Design.
·93	Drawing.
·95	Mechanical Models.
·97	Prime Movers.

625	**Steam Engineering.**
·021	Pocket Books.
·023	Tables.
·025	Popular Books.
·09	History of the Steam Engine.
·1	Steam Generation and Power.
·11	Steam. Theory of Heated Fluids.
·12	Superheated Steam. Superheaters.
·13	Steam Power Plant.
·14	Pipes and Fittings. Packing, Valves, Traps, Steam Separators, Oil Separators.
·15	Steam Boilers.
·151	Drawings.
·16	Early Types of Boilers.
·17	Multitubular Boilers.
·18	Water-tube Boilers.
·19	Special Types.
	Locomotive Boilers. *See* 626·52.
	Marine Boilers. *See* 693·7.
·2	Boiler Details.
·21	Furnaces. Mechanical Stokers.
·213	Oil Burning Devices.
·215	Chimneys.
·22	Fuel Economisers.
·225	Feed Apparatus.
·23	Water-gauges.
·235	Steam- or Pressure-gauges.
·24	Indicators.
·245	Scale Prevention and Removal.
·247	Safety-valves.
·249	Other Details.
·25	Steam Engines.
	Locomotives. *See* 626·4.
·251	Drawings.
·254	Balancing.
·255	Models.
·2555	Aero-Steam Engines. Eolipiles.
·26	Rotary Engines.
·265	Reciprocating Engines.
·27	Simple.
·28	Compound.
·29	Triple and Quadruple Expansion.
·295	Oscillating Cylinder.
·297	Other or unusual Reciprocating Types.
	Lubrication. *See* 625·74.
·3	Reciprocating Engine Details.
·31	Foundations. Frames.

STEAM ENGINEERING—continued.

625·315 Cylinders, Stuffing Boxes, Pistons, Piston Rods.
·317 Crossheads, Connecting-rods, Cranks.
·319 Shafts and Journals.
·32 Flywheels.
·325 Eccentrics.
·33 Valves. Valve-gears.
·335 Governors.
·34 Condensers. Exhausts.
·345 Other Details.
·35 Turbines.
·36 Steam Jets. Theory. Design.
·37 Blades, Spindle, Cylinder.
·38 Bearings.
Foundations. *See* 625·31.
·39 Other Steam Engines.
·4 Steam Engines for Special Purposes.
Marine Engines. *See* 693·1.
·41 Portable Engines.
·43 Stationary Engines.
Farm Engines. *See* 671·2.
·45 Traction Engines.
·47 Steam Lorries, Wagons and Trucks.
Steam Rollers. *See* 623·193.
·49 Steam Engine and Boiler Maintenance, Management, and Repair.
·491 Steam Engine and Boiler Inspection and Testing.
·493 Maintenance and Repair.
·494 Steam Engine Houses and Sheds.
·495 Operation and Management.
·498 Accidents. Safety Devices.
·499 Boiler Explosions.
Safety-valves. *See* 625·247.

625·5 Internal Combustion Engines and Heat Engines other than Steam.

·51 Drawings.
·52 Gas Engines.
·53 Ignition.
·54 Regulation Devices.
·55 Gas Turbines.
·555 Engines for utilization of Furnace and Waste Gases and Heat.
·56 Petrol and Oil Engines.
·565 Ignition.
·57 Heavy Oil Engines. Diesel Engines.
·575 Alcohol Engines.
·577 Engines for other Combustible Vapours.

625·58 Hot Air Engines.
·583 Solar Engines.
·585 Animal Motors. Treadmills.
·59 Internal Combustion, &c., Engine Maintenance, Management and Repair.
·591 Inspection and Testing.
·593 Maintenance and Repair.
·595 Operation, Care and Management.
·599 Accidents. Safety Devices.

625·6 Hydraulic and Pneumatic Machinery.

·61 Hydraulic Power Plant.
·615 Sluices, Accumulators, Pipe Lines, Waste-ways.
·62 Hydraulic Motors.
·625 Water-wheels.
·63 Turbines.
·635 Water Pressure Engines. Hydraulic Presses.
Hydraulic Lifts. *See* 625·88.
·64 Pumps and Pumping Engines.
·641 Hand Pumps.
·642 Hydraulic Rams.
·643 Steam Pumps.
·644 Electric Pumping Machinery.
·645 Piston Pumps.
·646 Rotary Pumps.
·647 Centrifugal Pumps.
·648 Steam Syphons. Pulsometers.
·649 Injector Pumps.
Fire Engines. *See* 614·76.
·65 Pneumatic Machinery.
Air Pumps. *See* 531·7.
·66 Blowers and Fans.
·661 Piston Blowers.
·663 Rotary Blowers.
·665 Centrifugal Blowers.
·667 Injector Blowers.
·67 Compressed Air.
·671 Air and Gas Compressors.
·673 Compressed Air Transmission.
·675 Pneumatic Tools and Machinery.
·677 Pneumatic Tubes and Carriers.
·68 Wind Motors.
·69 Hydraulic and Pneumatic Machinery Management, Maintenance and Repair.
·691 Inspection and Testing.
·693 Maintenance and Repair.
·695 Operation, Care and Management.
·699 Accidents. Safety Devices.

625·7 Transmissive Machinery. Mill Work.

·71	Power Measurement and Control.
·713	Dynamometers.
·715	Speed and Revolution Indicators.
·717	Regulating Devices.
	Steam Engine Governors. *See* 625·335.
·72	Shafting.
·73	Bearings.
·731	Journal Bearings.
·733	Pivot Bearings.
·735	Collar Bearings.
·737	Anti-friction Devices. Ball Bearings, Friction Wheels.
·74	Friction and Lubrication. *See also* 532·5.
	Lubricants. *See* 645·27.
·75	Belt, Rope and Chain Transmission.
·751	Pulleys.
·752	Belting.
·753	Link Belting.
·755	Rope Transmission.
·756	Chain Gearing.
	Toothed Gearing. *See* 624·4.
·758	Reduction Gearing.
·759	Variable Speed Gear.

625·76 Machine Tools and Workshop Practice.

·761	Machinists' Manuals.
·77	Machine and Hand Tools.
·773	Planing Machines, Shaping Machines, Slotting Machines.
·775	Grinding, Filing and Polishing Machines.
	Abrasives. *See* 651·8.
·777	Cutting and Sawing Machinery.
·78	Turning and Milling Machinery. Lathes.
·781	Gear-cutting Machines.
·782	Perforating Machinery.
·7823	Punching Machinery.
	Die-sinking. *See* 681·34.
·7825	Drilling Machinery. Reamers.
·783	Bending and Rolling Machinery.
·784	Hammers. Riveting Machines.
·785	Measuring Tools. Gauges.
·786	Benchwork and Fitting.
·787	Fastenings.
·788	Rivets, Bolts, Nuts.
·789	Taps, Dies, Screws.
·79	Workshops. Buildings. Plans. Arrangement.
·793	Management.
·799	Accidents. Safety Devices.

625·8 Hoisting and Conveying Machinery.

·83 Hoisting Machinery.
For Mining. *See* 655·86.
·84 Blocks and Falls.
·85 Cranes and Derricks.
Electric Cranes. *See* 639·3.
·86 Elevators. Lifts.
·87 Electric.
·88 Hydraulic.
·9 Conveying Machinery.
·91 Inclined Planes.
·93 Cable Ways.
·94 Belt Carriers.
·95 Conveyors for Small Objects.
·96 Coal-handling Machinery.
·97 Grain-elevator Machinery.
·98 Dumping Devices.
·99 Lifting Machinery. Jacks.

626 Railway Engineering.

·029 Legislation.
·1 Railway Construction.
·11 Drawings.
Railway Surveying. *See* 528·71.
·12 Earthwork.
Excavating Machinery. *See* 655·33.
·13 Tunnels. *See also* 655·45.
·14 Ventilation. Lighting.
·15 Special Tunnels.
·16 Permanent Way.
·165 Road Bed. Ballast.
·17 Ties. Sleepers.
·18 Rails. Points. Guard Rails.
·185 Curves.
·19 Accessories. Turntables. Fences.
Bridges, Viaducts. *See* 623·47.
Railway Ferries. *See* 692·74.
·2 Railway Buildings.
·21 Stations. Yards. Terminals.
·23 Train Sheds. Locomotive Houses.
Repairing Shops. *See* 626·6.
·25 Coal Sheds. Sand Bins.
·27 Water-supply Apparatus.
·3 Rolling Stock.
·31 Drawings. Design.
·33 Coaches. Coach Furnishing, Heating, Lighting and Ventilation.
·34 Wheels, Axles, Bearings.
Lubrication. *See* 625·74.
·35 Springs.
·36 Couplings. Draught Gear.

RAILWAY ENGINEERING—continued.

626·37	Brakes and Brake Gear.
·38	Motor Coaches.
·39	Freight Trucks.
·395	Derrick Trucks.
·4	Locomotives.
·41	Drawings. Design.
·42	Early types.
·44	Models.
·45	Simple.
·46	Compound.
·47	Oil Burning.
·48	Internal Combustion.
·49	Locomotives for Industrial Purposes.
·5	Locomotive Details.
·51	Frames and Running Gear.
·52	Boilers.
·53	Furnaces. Fire-boxes.
·54	Draught Appliances.
·55	Tenders.
·56	Cylinders, Pistons.
·57	Valves. Valve-gears.
·59	Other Details.
·6	Locomotive and Rolling Stock Maintenance, Management and Repair. Locomotive and Carriage Works.
·61	Supervision, Inspection, Testing.
·63	Maintenance and Repair.
·65	Operation and Management.
	Accidents. *See* 626·99.
·7	Electric Railways and Tramways. Electric Traction.
·71	Drawings. Design.
·72	Electrification of Steam Railways.
·73	Construction.
·74	Road-bed.
	Ties, Sleepers. *See* 626·17.
·745	Rails, Rail Bonds.
·75	Power Transmission Systems.
·751	Trolley.
·753	Third Rail.
·755	Underground Conduits.
·757	Surface Contact Systems.
·759	Other Systems.
·76	Rolling Stock. *See also* 626·3.
·765	Coach Wiring. Controllers.
·77	Motors.
	Coach Lighting and Heating. *See* 626·33.
·775	Safety Devices.

RAILWAY ENGINEERING—continued.

626·78 Electric Locomotives.
·781 Drawings. Design.
Operation and Management of Electric Railways. *See* 626·9.

·8 Railways for Special Purposes, including Light Railways.
·81 Industrial Railways.
·82 Street Railways. Tramways.
·83 Cable Systems.
·84 Compressed Air Systems.
·85 Underground Railways. Subways.
·86 Elevated Railways.
·865 Suspended Railways.
·87 Mono-rail Systems.
·88 Inclined and Mountain Railways.
Military Railways. *See* 695·74.
·89 Other Railways.

·9 Railway Operation and Management.
·91 Maintenance of Permanent Way and Tunnels.
·92 Trains. Resistance, Speed, Load.
·93 Traffic Operation.
·94 Signalling and Telegraphic Equipment.
Vision Tests. *See* 612·595.
·95 Manual Systems.
·96 Telegraph and Telephone Systems.
·97 Block Systems.
·98 Interlocking Systems.
·99 Railway Accidents. Safety Devices.

627 Motor Car Engineering.

·021 Pocket Books.
·1 Motor Cars.
·11 Drawings. Design.
·19 Early Forms.
·2 Motors.
·25 Steam Motors and Motor Cars.
·3 Internal Combustion Motors and Motor Cars.
·35 Carburetters.
·37 Ignition. Magnetos.
·4 Petrol and Petroleum Motors.
·45 Alcohol Motors.
·47 Coal-gas and other Gas Motors and Appliances for utilizing Coal Gas.
·5 Electric Motor Cars.
·53 Compressed Air Motor Cars.

MOTOR CAR ENGINEERING—continued.

- 627·6 Motor Car Details.
  - ·61 Frame. Chassis.
  - ·63 Running Gear. Wheels. Tyres.
  - ·65 Accessories.
  - ·69 Other Details.
- ·7 Motor Cars for Special Purposes.
  - For Military Use. *See* 695·79.
  - ·75 For Freight. Motor Transport. Tractors.
    - Farm engines. *See* 671·2.
    - Steam Lorries and Wagons. *See* 625·47.
- ·8 Bicycles and Tricycles.
  - ·81 Early Forms.
  - ·83 Motor Cycles.
  - ·85 Cycle Cars.
- ·9 Motor Car Management, Maintenance and Repair.
  - ·91 Inspection and Testing.
  - ·93 Maintenance and Repair.
  - ·95 Operation, Care and Management. Motoring.
  - ·99 Accidents. Safety Devices.

628 Hydraulic Engineering.

- ·1 Applied Hydrodynamics. Hydraulics.
  - ·11 Orifices, Nozzles.
  - ·13 Pipes and Conduits.
  - ·15 Open Channels, Rivers, Canals, Weirs.
  - ·17 Water and Current Meters.
    - Water-supply Meters. *See* 623·76.
  - ·19 Tables and Diagrams.
- ·2 General Operations.
  - ·21 Drawings.
  - ·23 Diving and Diving Apparatus.
  - ·24 Dredging.
  - ·25 Submarine Blasting.
  - ·26 Submarine Building.
    - ·27 Submarine Foundations.
    - ·28 Cofferdams. Caissons.
    - ·29 Rock-boring Animals.
      - Pile Driving. *See* 622·175.
- ·3 Coast Protection and Reclamation.
  - ·31 Breakwaters.
  - ·33 Sea-walls.
  - ·35 Dykes. Embankments.
    - Dunes. *See* 552·2.
- ·4 Harbour Works.
  - ·41 Sea-locks.
  - ·42 Docks.
  - ·43 Piers. Quays. Wharves.
  - ·44 Dry Docks.
  - ·45 Floating Docks. Ship-raising Pontoons.
  - ·49 Other Special Docks.

HYDRAULIC ENGINEERING—continued.

628·5	Lighthouses.
·51	Lights.
·53	Buoys.
·6	River and Lake Engineering.
	Water-supply Engineering. *See* 623·51.
·61	River Protective Works. Embankments.
·63	Jetties.
·65	Dams. Weirs.
·7	Canals and Inland Navigation.
·71	Embankments.
·73	Locks. Gates.
·75	Lifts. Inclines. Ship and Boat Railways.
	Canal Boats. *See* 692·89.
	Aqueducts. *See* 623·71.
·79	Ship Canals.
·8	Irrigation Engineering. *See also* 672·5.
·81	Irrigation Canals.
·83	Flooding Waste Lands.
·85	Drainage. Reclamation.
629	**Aeronautics.**
·01	Works on Aeronautics published before 1800.
·015	Bibliography.
·02	Text Books.
·021	Pocket Books.
·025	Popular Works.
·029	Legislation.
·03	Dictionaries and Encyclopædias.
·04	Essays, Lectures and Addresses.
·05	Journals.
·06	Transactions of Societies.
·065	Congresses.
·067	Exhibitions.
·07	Teaching of Aeronautics.
·08	Collected Works.
·09	History of Aeronautics.
·095	Biography.
·1	Aerodynamics.
·11	Theory of the Discontinuous Stream-line.
·13	Thrust and Centre of Pressure. The Aeroplane and Aerofoils.
·14	Air Resistance.
·15	Air Propellers.
·17	Pneumatics of Airships and Balloons.
·2	Aerodonetics.
·21	Flight of Birds and other Animals.
·23	Equilibrium and Stability of Flight. The Phugoid. Equation of Stability.

AERONAUTICS—continued.

629·25 Lateral, Longitudinal and Directional Stability. Rotational Stability.
·27 Soaring.
·3 Experimental Aerodynamics and Aerodonetics.
·31 Apparatus.
·4 Aircraft.
·41 Drawings.
·43 Aircraft Works.
·45 Early Forms.
·451 Fire Balloons.
·453 Gliders.
·455 Ornithopters.
·46 Kites.
·47 Balloons. } *See also* 553·8.
·48 Parachutes.
·49 Helicopters.
·495 Dirigible Balloons.
·5 Aeroplanes.
·53 Monoplanes.
·55 Biplanes.
·6 Aircraft Details.
·61 Planes. Fabric.
·62 Steering Apparatus.
·65 Motors.
·67 Propellers.
·68 Special Aircraft Instruments.
Aeronautical Photography. *See* 649·89.
·69 Other Details.
·7 Aircraft for Special Purposes.
·71 Naval and Military Aeronautics. War Craft.
·72 Bomb-dropping Apparatus.
·73 Seaplanes.
·75 Passenger Craft.
·77 Freight Craft.
·8 Aerodromes. Hangars. Landing Stages.
·83 Aeronautical Navigation.
·85 Aerial Voyages.
·86 By Balloon.
·87 By Dirigible.
·88 By Aeroplane.
·9 Aircraft Maintenance, Management and Repair.
·91 Inspection and Testing.
·93 Maintenance and Repair.
·95 Operation, Care and Management of Aircraft. Flying. Ballooning.
·99 Aircraft Accidents. Safety Devices.

630. ELECTRICAL ENGINEERING.

630·15 Bibliography.
·2 Text Books.
·21 Pocket Books.
·23 Tables.
·25 Electricity for Amateurs. Popular Works
·29 Legislation.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Electrical Engineering.
·8 Collected Works.
·9 History of Electrical Engineering.
·95 Biography.

631 Electric Generation and Power.

·1 Electric Power Plant.
·11 Steam.
·12 Hydro.
·13 Gas and Oil.
·15 Central and Sub-stations.
·16 Switchboards.
·17 Rheostats.
·19 Accumulators.
·2 Primary Batteries.
·21 Electromagnets.
·25 Magneto Machinery.
·3 Dynamo Electric Machinery.
·31 Drawings. Design.
·37 Workshops.
·4 Direct Current Machinery.
·41 Generators.
·43 Motors.
·5 Alternating Current Machinery.
·51 Theory. *See also* 538·74.
·53 Single Phase.
·55 Generators.
·57 Motors.
·6 Polyphase.
·61 Generators.
·63 Motors.
·7 Transformers.
·71 Static Transformers. Alternating Current.
·73 Rotary Transformers. Motor Generators. Rotary Converters.
·75 Valves. Rectifiers.

ELECTRICAL GENERATION AND POWER—continued.

631·77 Induction Coils. Inductances. Choking Coils.
·79 High-frequency Apparatus.
·9 Maintenance, Management and Repair of Dynamo Electric Machinery.
·91 Inspection and Testing.
·93 Maintenance and Repair.
·95 Operation and Management.
·99 Accidents. Safety Devices.

632 Distribution of Electric Power.
·05 Insulating materials.
·1 Direct Current Systems.
·2 Alternating Current Systems.
·3 Single Phase.
·4 Two Phase and Polyphase.
·5 Wiring for Electric Power and Lighting.
·6 Overhead Lines.
·7 Underground Lines.
·8 Interior Wiring.
·9 Switches, Fuses, Accessories.

633 Electric Measurements and Testing.
·1 Electric Engineering and Testing Laboratories.
Electric and Magnetic Units. *See* 538·21.
·2 Measurement of Resistance. Resistance Boxes.
·23 ,, ,, Capacity.
·25 ,, ,, Inductance.
·3 ,, ,, Potential. Voltmeters.
·4 ,, ,, Current. Ammeters.
·5 ,, ,, Power. Watt Meters.
·6 ,, ,, Quantity. Ampere-hour Meters.
·7 ,, ,, Energy. Watt-hour Meters.
·8 ,, ,, Alternating Current Phase and Frequency. Synchronizers.
·83 Electromagnetic Wave Measurements.
·85 Magnetic and other Measurements.
·9 Testing of Electrical Appliances and Wiring.
Machinery. *See* 631·91.

634 Electric Lighting.
Wiring. *See* 632·5.
·2 Fixtures.
·3 Arc Lighting.
·4 Carbons.
Searchlights. *See* 692·66.
·5 Incandescent Filament Lighting. Nernst Lamps.
·6 Metal Vapour Lamps. Mercury Lamps. Cadmium Lamps.
·7 Electric Torches.
Electric Lighting of Ships. *See* 692·63.
,, ,, ,, Mines. *See* 655·67.

635	**Electric Heating.**
	Wiring. *See* 632·5.
·2	Electric Radiators.
·4	Carbon Filament Type.
·6	Metal Resistance Type.
·8	Electric Cookers.
	Electric Furnaces. *See* 641·55
	„ Welding. *See* 681·2.
636	**Electric Telegraphy and Telephony.**
·09	History.
·1	Wiring of Telegraph and Telephone Circuits.
·2	Overhead Lines. Poles.
·3	Underground Lines. Cables.
·4	Submarine Cables. Cable Laying.
·5	Telegraphy.
·55	Plants. Stations. Switchboards.
·6	Instruments.
·65	Codes, Alphabets.
·7	Early Systems.
·71	Needle Instruments.
·73	Step-by-Step Instruments.
·75	Sounders.
·77	Recorders.
·8	Duplex, Quadruplex and Multiplex Working.
·81	Automatic Telegraphy.
·83	Autograph Systems.
·85	Submarine Telegraphy.
·9	Transmission of Pictures.
·91	Relays.
·93	Lightning Arresters.
637	Wireless Telegraphy.
·1	Plants. Stations.
·3	Instruments.
·7	Control of Automatic Apparatus. Wireless Control.
638	Telephony.
·1	Plants. Exchanges.
·15	Automatic Telephony. Selectors.
·2	Instruments.
·3	Transmitters. Microphones.
·4	Receivers.
·5	Telegraphophone. Recording Telephone.
·6	Relays.
·7	Transformers.
·75	Lightning Arresters.
·8	Wireless Telephony.
·81	Plants.
·83	Instruments.

ELECTRIC TELEGRAPHY AND TELEPHONY—continued.

638·9 Maintenance, Management and Repair of Telegraphic and Telephonic Installations.
·91 Inspection and Testing.
·93 Maintenance and Repair.
·95 Operation and Management.

639 Miscellaneous Applications of Electricity.

Electric Brakes. *See* 626·37.
" Clocks. *See* 527·18.
" Traction. *See* 626·7.
" Train Signalling. *See* 626·94.

·1 Electric Alarms. Burglar Alarms.
Fire Alarms. *See* 614·75.
·2 Electric Bells, Buzzers and other Signalling Instruments. Electric Trumpets. Horns.
·3 Electric Cranes.
·4 " Ignition of Gas.
·5 " Toys. Electric Dog.
·6 Medical Appliances.
·8 Motors for Special Purposes.
·9 Other Applications of Electricity.

640. CHEMICAL TECHNOLOGY.

640·1 Works on Chemical Technology published before 1800.
·15 Bibliography.
·2 Text Books.
Inorganic Industries. *See* 642.
Organic Industries. *See* 646.
·21 Pocket Books.
·23 Tables.
·29 Legislation.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Chemical Technology.
·8 Collected Works.
·9 History of Chemical Technology.
·95 Biography.

641 Chemical Engineering. Plant, Apparatus and Machinery.

·1 Weighing and Measuring. Automatic Hoppers.
·2 Transportation of Solids, Liquids and Gases.

641·3	Treating and Preparing Solids, Liquids and Gases.
·31	Crushing. Grinding. Screening. *See also* 655·93 *and* 655·94.
·32	Levigation.
·34	Mixing Solids, Liquids and Gases. Agitators. Absorption of Gases.
·39	Compressing and Moulding Solids. Presses.
	Compressing Gases. *See* 625·671.
·4	Application of Cold and Heat.
·41	Cooling and Refrigeration.
·42	Ice Making.
·43	Cold Storage.
·44	Heat Exchangers.
·45	Steam Heating.
·46	Gas Burners. Giant Bunsens.
·47	Liquid Fuel Burners.
·48	Furnaces.
·481	Open Furnaces. Roasting Furnaces. Revolvers.
·483	Muffle Furnaces. Plus Pressure Furnaces.
·485	Gas Producers.
·487	Surface Combustion.
·5	Electro-chemical Apparatus and Methods. Applied Electro-chemistry.
·55	Electric Furnaces.
·56	Arc Furnaces.
·57	Resistance Furnaces.
·59	Electrolysis.
·6	Separation.
·61	Separating Solids from Solids. Lixiviation, Extraction, Percolation, Digestion, Sublimation.
	Magnetic Separation. *See* 655·97.
·62	Separating Solids from Liquids.
·63	Sedimentation.
·64	Filtration. Filter Presses. Expression of Liquids. Oil Presses.
·65	Centrifugal Separation.
·66	Crystallization.
·67	Treatment of Colloids. Dialysis. Ultrafiltration. Electroendosmosis, Cataphoresis.
68	Separating Liquids from Liquids.
·69	,, Gases from Solids and Liquids.
	Separating Gases from Gases. *See* 641·34.

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641·7	Evaporation.
·71	Solar Heat.
·73	Direct Heat and Steam Heat.
·77	In Vacuo.
·78	Vacuum Pans.
·79	Multiple Effect Systems.
·8	Distillation.
·81	Stills.
·82	Fractional Condensation.
·83	Vacuum Stills.
·84	Condensers.
·85	Desiccation.
·86	Drying by Direct Heat.
·87	,, ,, Indirect Heat.
·88	,, in Vacuo.
·9	Industrial Catalysis.
·95	Chemical Works.
·97	Management.
·99	Accidents. Safety Devices.
642	**Inorganic Industries.**
·1	Gases.
·11	Carbon Dioxide.
	Aërated Waters. *See* 613·685.
·12	Chlorine.
·13	Hydrogen.
·15	Liquid Air.
·16	Oxygen.
·17	Ozone.
·18	Nitrogen.
	Carbon Monoxide. *See* 645·36.
	Gas Analysis. *See* 541·8.
·2	Alkalies, Acids, and Salts.
	Acetic Acid, Vinegar. *See* 647·55.
·21	Boric Acid. Borax.
·22	Citric Acid.
·23	Hydrochloric Acid.
·232	Chlorides.
·234	Salt.
·236	Hypochlorites. Bleaching Powder.
·238	Chlorates.
·24	Manganates. Permanganates.
·25	Nitric Acid. Nitrates. Nitre.
·253	Nitrites.
·259	Phosphates.
·26	Sulphuric Acid.
·262	Fuming Sulphuric Acid.
·264	Sulphates. Alums.
·266	Sulphurous Acid. Sulphites.
·268	Thiosulphates.

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642·27 Tartaric Acid.
·28 Ammonia. Ammonia Salts.
·281 Synthetic Ammonia.
·285 Potash.
·29 Soda.
·291 Le Blanc Process.
·292 Ammonia Process.
·299 Peroxides.
Fertilisers. ***See*** **672·8.**
·4 Calcareous Cements.
·41 Lime. Lime Kilns.
·42 Mortar.
·44 Portland Cement.
·45 Hydraulic Cement.
·46 Lutes and Miscellaneous Cements.
·47 Plaster and Gypsum Products.
·49 Artificial Stone.
·5 Clay Industries. Aluminium Compounds. Pottery.
·51 Aluminium Compounds.
Alums. ***See*** **642·264.**
·52 Aluminium Hydroxide. Alumina.
·53 Artificial Zeolite or Permutite Industry.
·55 Thermite.
·6 Ceramics. Pottery.
Clays. ***See*** **651·5.**
·61 Glazes.
·62 Earthenware.
·63 Porcelain.
·65 Stoneware and Common Glazed Red and Brown Ware.
·66 Bricks, Tiles and Unglazed Ware.
·69 Refractory Materials. Furnace Linings.
·7 Glass.
·71 Plate Glass.
·72 Optical Glass.
·73 Opal and Coloured Glass.
·74 Glass Ware.
·75 Enamel.
·77 Quartz Glass and Fused Silica Glass.
·79 Water Glass.
·8 Inorganic Pigments and Paints.
·85 Inks and Printers' Inks.
·9 Electric Furnace Products.
·91 Carborundum.
·92 Manufactured Graphite.
·93 Alundum.

INORGANIC INDUSTRIES—continued.

642·94	Ferro-silicon.
·95	Carbides.
·97	Nitrolime.
643–644	Other Inorganic Chemicals under Principal Elements by changing "5" into "6" in 543–544, *e.g.*:—
644·11	Phosphorus.
·12	Arsenic.
·32	Sulphur.
·53	Bromine.
·54	Iodine.
645	Fuels, Illuminants, Mineral Oils.
·1	Solid Fuels.
·11	Wood.
·12	Peat. Lignite. Brown Coal.
·13	Bituminous Coal.
·14	Briquets.
·15	Anthracite.
·16	Charcoal.
·17	Pulverized Coal.
·2	Liquid Fuels and Low Temperature Distillation of Solid Fuels.
·21	Coal Distillation. Coke. By-product Coking Ovens.
·22	Shale Distillation. Shale Oil.
·23	Peat Distillation.
·24	Distillation of Crude Oils. Mineral Oils. Petroleum.
·25	Light Oils. Petrol.
·26	Burning Oils.
·27	Heavy Oils. Lubricants.
·28	Paraffin Wax. Vaseline.
·29	Asphalt.
·3	Gaseous Fuels.
·31	Natural Gas.
·32	Coal Gas. High Temperature Distillation of Coal. Gas Coke.
·34	Oil Gas.
·35	Acetylene. Calcium Carbide. *See* 642·95.
·36	Producer Gas.
·37	Water Gas.
·38	Other Fuels. Artificial Fuels.
·39	Other Illuminants.
·4	Analysis and Testing. Calorific Value.
·41	Solid.
·42	Liquid.
·43	Gaseous.

INORGANIC INDUSTRIES—continued.

645·5 Explosives, Pyrotechnics, Matches.
Legislation. *See* 640·29.
·6 Explosives.
·61 Gunpowder.
·63 Nitrocellulose Compounds. Gun Cotton. Celluloid.
·65 Nitroglycerin compounds. Dynamite.
·7 Aromatic Nitro-compounds.
·71 Trinitrotoluene.
·73 Picric Acid. Lyddite. Picrates.
·75 Other Aromatic Nitro-compounds.
·76 Miscellaneous Explosives.
·77 Fuses, Caps, Fulminates.
·79 Testing and Analysis of Explosives.
·8 Pyrotechnics. Rockets. Very Lights.
·9 Matches.

646 Organic Industries.

·1 Destructive Distillation of Wood. Acetone. Methyl Alcohol.
·2 Destructive Distillation of Bones. Bone Oil. Animal Charcoal.
Black Pigments. *See* 642·8.
·3 Coal Tar Distillation.
·4 Colouring Matters.
·41 Natural Dye Stuffs.
·42 Indigo.
·43 Madder.
·44 Artificial Dyes. Aniline Dyes.
·45 Indigo.
·46 Alizarin.
·47 Dyeing, Calico Printing and Bleaching.
·49 Analysis and Testing of Dye Stuffs.
646·5–646·6 Other organic compounds, not specified in the classification, arranged according to 545 and 546 by omitting "54" and adding the rest of the number to 646, *e.g.*:—
646·53 Cyanides.

647 Vegetable and Animal Oils, Fats and Waxes.
·1 Fatty Oils.
·13 Vegetable Oils.
·15 Animal Oils.
·2 Solid Fats and Waxes.
·23 Vegetable Fats.
·25 Animal Fats.
·29 Analysis and Testing of Oils, Fats and Waxes.

ORGANIC INDUSTRIES—continued.

647·3 Essential Oils.
·32 Turpentine.
·34 Perfumery.
·36 Flavouring Extracts.

·4 Soap, Glycerin and Candles.
·42 Soap.
·44 Glycerin.
·46 Candles.

·5 Fermentation Industries.
·51 Alcohol.
·52 Brewing.
·53 Wines. Cider.
·54 Distilled Liquors. Spirits.
·55 Acetic Acid. Vinegar.
·56 Lactic Fermentation.
·59 Analysis and Testing. Alcoholimetry.

·6 Colloid Industries.
·61 Resins and Gums.
·62 Resins.
·63 Lac. Sealing Wax.
·64 Gums.
·65 Caoutchouc, Vulcanization.
·66 Gutta-percha.
·67 Varnishes.

Black Pigments. ***See* 642·8.**

·7 Carbohydrate Industries.
·71 Starch.
·72 Dextrin.
·73 Sugars.
·74 Glucose.
·75 Cane Sugar.
·76 Beet Sugar.
·77 Cellulose. Cellulose Esters.

Cellulose nitrates. ***See* 645·63.**

·8 Textile Fibres.
·81 Vegetable Fibres.
·82 Paper and Paper Manufacture.
·83 Animal Fibres.
·85 Artificial Fibres. Artificial Silk.
·89 Microscopic and Chemical Examination of Fibres.

Dyeing and Calico Printing. ***See* 646·47.**

·9 Animal Tissues.
·91 Leather. Tanning.
·93 Glue. Gelatin. Isinglass.

649. PHOTOGRAPHY.

649·015 Bibliography.
·02 Text Books.
·021 Pocket Books.
·03 Dictionaries and Encyclopædias.
·04 Essays, Lectures and Addresses.
·05 Journals.
·06 Transactions of Societies.
·065 Congresses.
·067 Exhibitions.
·07 Teaching of Photography.
·08 Collected Works.
·09 History of Photography.
·095 Biography.

649·1 Theory of Photographic Processes.
·2 Photographic Chemistry.
Photo-chemistry. *See* 542·86.
·3 Photographic Physics. Photographic Optics.

649·4 Photographic Laboratories, Studios, Apparatus and Material.
·41 Dark Rooms.
·42 Laboratory and Dark Room Accessories and Apparatus.
·43 Lighting. Exposure. Shutters.
·44 Cameras, Slides and Accessories.
·45 Photographic Lenses. *See also* 536·15.
·46 Telephotography.
·47 Stereoscopy.

649·5 Photographic Processes.
·51 Direct Positive Processes.
·52 Daguerrotype.
·53 Ferrotype.
·55 Treatment of Negatives. Development, Intensification, Reduction, Fixing, Finishing and Retouching.
·57 Processes with Silver Salts. Calotype.
·59 Other processes.
·6 Treatment of Positives. Printing, Fixing, Toning, Intensification, Colouring and Mounting.
·61 Silver Processes.
·62 Printing-out Processes. Gelatin, Collodion, Albumen, Plain Salted.
·63 Developed Processes. Bromide, Gas-Light.

PHOTOGRAPHIC PROCESSES—continued.

649·64 Platinotype.
·65 Ferro-Prussiate. Blue Prints. Black Prints.
·66 Chromate, Carbon, Gum Bichromate, Oil Prints.
·69 Other Processes.

649·7 Colour Photography.

·71 Single Plate Processes. Lippmann, Joly, Lumière, &c.
·73 Three-plate and Two-plate Processes. Colour Filters.
·75 Colour Printing from Transparencies. Uto-colour Printing.

649·8 Special Applications of Photography.

·81 Cinematography.
·82 Photography of Coloured Objects.
·83 Nature Photography. Tropical Photography.
·84 Submarine Photography.
·85 Photographs on Metal, Glass, Leather. Photo-enamels.
·86 Transparencies. Lantern Slides.
·87 Copying. Enlargement.
·88 Photographic Methods for Detection of Forged Documents, &c.
·89 Aeronautical Photography.

Micro-photography. *See* 571·5.
Radiography. *See* 571·7.
Photographic Surveying. *See* 528·66.
Photo-mechanical Reproduction. *See* 686.

650. MINING AND ECONOMIC GEOLOGY.

650·1 Works on Mining published before 1800.
·15 Bibliography.
·2 Text Books.
·21 Pocket Books.
·25 Popular Works on Mining.
·29 Legislation. Mining Laws.
[Divided geographically.]
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Mining.
·8 Collected Works.
·9 History of Mining.
·95 Biography.

651	**Economic Geology.**
·1	Mineral Deposits. Origin, Occurrence and Distribution.
	Ores of Metals. *See* 653.
·2	Coal.
·22	Peat.
·24	Lignite. Brown Coal.
·26	Bituminous Coal. Cannel Coal. Semi-bituminous Coal.
·28	Anthracite.
·3	Petroleum, Natural Gas and Other Hydrocarbons.
·31	Natural Gas.
·315	Helium.
·32	Petroleum.
·33	Ozokerite. Mineral Waxes.
·34	Oil Shale.
·35	Asphalt. Bitumens.
·39	Other Hydrocarbons.
·4	Building Stones.
·42	Granites, Syenites, Porphyries and Greenstones.
·43	Serpentines.
·44	Limestones and Marbles.
·45	Sandstones.
·48	Slates.
·49	Other Rocks.
·5	Clays.
·52	Kaolins.
·54	Pottery Clays.
·56	Brick and Tile Clays.
·58	Fireclays.
·59	Refractory Materials. *See also* 624·69.
·6	Cement Materials.
·7	Gypsum and Anhydrite.
·8	Abrasives.
·82	Oilstones, Millstones.
·84	Pumice and Volcanic Ash.
·86	Corundum and Emery.
	Grindstones and Emery Wheels. *See* 625·775.
652	Other Minerals.
·1	Amber. Fossil Gums. *See also* 549·797.
·15	Asbestos.
·2	Barytes. Witherite.
·25	Fluor Spar.
·3	Fuller's Earth.
·35	Infusorial Earth and Tripoli.
·4	Graphite.
·45	Lithographic Stones.
·5	Magnesite.

ECONOMIC GEOLOGY—continued.

652·55 Mica.
·6 Mineral Pigments.
·65 Monazite.
·7 Phosphates.
·75 Radio-active Minerals.
·8 Sands. Glass Sand. Moulding Sand.
·85 Sulphur.
·9 Pyrites.
·95 Talc and Soapstone.

[Other Minerals not provided for above entered under principal constituent according to Chemistry classification, 543–544, by changing "54" into "65."]

·98 Sources of Water-supply and Water-power.
·99 Mineral Springs and Waters.

653 Ores of Metals.

·11 Alkali Metals. Salines.
·12 Lithium Salts.
·13 Sodium Salts.
·131 Salt.
·132 Rock Salt.
·133 Natural Brines.
·134 Sodium Sulphate.
·135 „ Carbonate.
·136 „ Nitrate.
·137 Borax and Borates.
·14 Potassium Salts.
·21 Copper.
·22 Silver.
·24 Gold.
·32 Magnesium.
·34 Strontium.
·41 Zinc.
·42 Cadmium.
·44 Mercury.
·84 Tin.
·86 Lead.
654·12 Arsenic.
·13 Antimony.
·15 Bismuth.
·21 Chromium.
·24 Tungsten.
·25 Uranium.
·4 Manganese.
·61 Iron.
·62 Cobalt.
·63 Nickel.

ORES OF METALS—continued.
654·83 Platinum.
[Other ores similarly arranged under principal constituent according to Chemistry 543–544 by changing "54" into "65."]
Mineral Resources of Different Countries. *See* 659.

655 Prospecting and Surveying.
·1 Prospecting.
·15 Divining Rod.
·2 Mine Surveying.
·25 Magnetic Surveys of Mines.

655·3 Mine Engineering and Machinery.
·31 Mining Tools.
·32 Excavating. Open Working. *See also* 622·15.
·33 Excavating Machinery.
·34 Quarrying.
·35 Drilling and Blasting. Rock Drills.
·4 Boring. Oil Well Drilling.
Artesian Wells. *See* 623·55.
·43 Shaft Sinking.
·45 Tunnelling. *See also* 626·13.
·47 Stoping.
·49 Timbering.
·5 Electrical Mine Engineering.
·6 Ventilation of Mines.
·65 Lighting of Mines.
·66 Safety Lamps.
·67 Electric Lighting.
·7 Mine Drainage.
Pumps. *See* 625·64.
·8 Mine Transportation, Haulage and Hoisting.
·81 Underground Roads
·82 Mechanical Haulage.
·83 Electric Mine Locomotives.
·84 Mine and Ore trucks.
·85 Conveyors. *See also* 625·9.
·86 Hoisting Machinery. *See also* 625·83.
·87 Surface Transportation.

655·9 Ore Dressing and Milling.
·91 Ore Drying.
·92 Milling.
·93 Crushing. Rolls. Stamps. Breakers. *See also* 641·31.
·94 Screening. *See also* 641·31.
·95 Concentrating. Jigs. Tables. Vanners.
·96 Slime Treatment.
·97 Magnetic Separation.
·98 Flotation.

656–657 Special Kinds of Mining.

[Numbers as 653 and 654 by changing "3" into "6" and "4" into "7."]

656·131 Salt Mining.
·21 Copper.
·22 Silver.
·24 Gold.
·41 Zinc.
·42 Cadmium.
·44 Mercury.
·81 Coal.
·815 Diamond.
·84 Tin.
·86 Lead.
657·21 Chromium.
·24 Tungsten.
·25 Uranium.
·4 Manganese.
·61 Iron.
·83 Platinum.

658 Mine Operation and Management.

·1 Inspection of Mines.
·2 Labour. Condition of the Miner.
·3 Mining Accidents and their Prevention.
·35 Safety Devices. Safety Lamps.
·4 Fire Damp and Dust. Explosions.
·5 Mine Fires.
·6 Fall of Roof.
·7 Flooding of Mines.
·8 Diseases peculiar to Miners. Ankylostomiasis. Sanitation of Mines.
·85 Mining Book-keeping.

658·9 Mineral Statistics of Different Countries.

[Arranged by adding the Topographical numbers, 990–999, with "99" omitted to 658·9, *e.g.*, United States, 994·6—Mineral Statistics of the United States, 658·946.]

659 Mineral Resources and Mining in Different Countries.

[Arranged as above by adding the Topographical numbers to 659, *e.g.*, Mineral Resources of the United States, 659·46.]

660. METALLURGY.

660·1 Works on Metallurgy published before 1800.
·15 Bibliography.
·2 Text Books.
·21 Pocket Books.

METALLURGY—continued.

660·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Metallurgy.
·8 Collected Works.
·9 History of Metallurgy.
·95 Biography.

661 Metallography. The Metals in General.
·1 Thermal Equilibrium and Thermal Analysis.
·3 Microscopical Examination and Apparatus.
·35 Crystallization of Metals and Alloys.
·4 Plastic Deformation. Mechanical Treatment.
·5 Metallography of Iron and Steel.
·7 Metallography of Alloys.
·71 Gold and Silver.
·73 Brass and Bronze.
Corrosion and Electromotive Force. *See* 621·62.
·9 Tables of Physical Constants of Metals and Alloys.

662 Metallurgical Plant, Machinery and Processes.
·1 Metallurgical Agents and Processes. Fluxes. Slags. Roasting.
·3 Furnaces. *See also* 641·48.
Blast Furnaces. *See* 664·6113.
Refractory Materials. *See* 642·69.
·5 Electro-metallurgical Methods and Appliances.
·6 Electrotyping.
·7 Electroplating.

663–664 Metallurgy of Special Metals.
[Arranged according to 653–654 by changing "5" into "6."]

663·13 Sodium.
·14 Potassium.
·21 Copper.
·22 Silver.
·24 Gold.
·32 Magnesium.
·41 Zinc.
·42 Cadmium.
·44 Mercury.
·62 Aluminium.
·84 Tin.
·86 Lead.
664·13 Antimony.
·15 Bismuth.
·21 Chromium.
·24 Tungsten.

METALLURGY OF SPECIAL METALS—continued.

664·25	Uranium.
·4	Manganese.
·61	Iron and Steel.
·611	Cast Iron.
·6113	Blast Furnaces.
·6115	Air Blast. Utilization of Waste Heat.
·6117	Blowers. *See also* 625·66.
·6119	Electric Processes.
·612	Wrought Iron.
·6125	Puddling Processes.
·613	Steel.
·6135	Cementation Process. Shear and Crucible Steel.
·614	Bessemer Process.
·615	Basic Bessemer Process.
·616	Siemens (Open Hearth) Process.
·617	Basic Siemens Process.
·618	Electric Smelting.
·6189	Annealing, Tempering, Hardening.
·619	Iron and Steel Alloys.
·62	Cobalt.
·63	Nickel.
·83	Platinum.
665	**Assaying and Metallurgical Analysis.**
·1	Metallurgical Laboratories and Apparatus.
·61	Iron and Steel Analysis.
62	Silver.
·64	Gold.

For other metals *see* 541·73.
Metallurgy of different Countries. *See* 659.

670. AGRICULTURE.

670·1	Works on Agriculture published before 1800.
·15	Bibliography.
·2	Text Books.
·23	Tables.
·24	Handbooks for Farmers.
·25	Popular Books on Agriculture.
·29	Legislation.
·3	Dictionaries and Encyclopædias.
·4	Essays, Lectures and Addresses.
·5	Journals.
·6	Transactions of Societies.
·65	Congresses.
·67	Exhibitions.
·7	Teaching of Agriculture.
·8	Collected Works.
·9	History of Agriculture.
·95	Biography.

671 Agricultural Engineering and Equipment.

·1 Buildings.
·2 Implements, Tools, Machinery. Tractors.
·3 Implements for Working Soils. Ploughs.
·4 Implements for Sowing Seed.
·5 Implements for Securing Crops.
·6 Implements for Preparing Crops for Market.
·7 Implements for Preparing Food for Stock.
·8 Hand Implements. Garden Tools.
·9 Experiment Stations. Equipment and Organization.

[Reports of Experiment Stations arranged according to countries by adding the Topographical numbers, 990–999, with "99" omitted, to 671·9, *e.g.*, Ottawa, 994·3—Reports of the Ottawa Experimental Farm, 671·943.]

672 Agricultural Physics and Chemistry.

·05 Agricultural Geology.
·1 Soils.
Bacteriology of Soils. *See* 589·56.
·15 Composition and Analysis.
·2 Improvement of the Physical Character of Soils. Tillage.
·3 Dry Land Agriculture.
·4 Clearing Ground. Reclamation.
·5 Irrigation. *See also* 628·8.
·55 Drainage. *See also* 628·85.
·6 Relations of Crops to Soil. Rotations.
·7 Crops and Climate.
·75 Tropical Agriculture.
·8 Fertilizers.
·81 Alkalies. Lime, Marl, Potash.
·83 Phosphates.
·85 Nitrogenous Substances.
·87 Animal Products.
·88 Vegetable Fertilizers.
·89 Soil Inoculation.
·9 Plant Analysis and Composition.

673 Economic Botany.

·01 Agricultural Botany.
·015 General Plant Culture.
·02 Plant Introduction.
·03 Plant Breeding.
·04 Training, Pruning, Grafting.
·05 Forcing.
·06 Electro-culture.

ECONOMIC BOTANY—continued.

673·07	Farm Management. Farming.
·08	Harvesting, Curing, Storage.
·09	Packing, Transport, Marketing.
·1	Farm Crops.
·15	Seeds.
·17	Seed Testing.
·2	Cereals.
·21	Barley.
·23	Maize.
·24	Oats.
·25	Rice.
·26	Rye.
·27	Wheat.
·29	Other Cereals.
·3	Forage Crops.
·31	Ensilage, Silos.
·32	Grasses, Pasture.
·33	Kale, Rape.
·34	Legumes.
·35	Alfalfa, Lucerne.
·36	Clover.
·37	Soy Bean.
·38	Vetch, Sainfoin.
·39	Other Forage Crops.
·4	Sugar Plants.
·41	Sugar Maple.
·43	Sugar Sorghum.
·45	Sugar Beet.
·47	Sugar Cane.
·49	Other Sugar Plants.
·5	Vegetables.
·51	Culture under Glass.
·52	Kitchen Gardens. Allotments.
·53	Root Crops.
·531	Artichoke.
·532	Beet (except Sugar Beet). Perpetual Spinach.
·533	Carrots, Parsnips.
·534	Mangels.
·535	Onions, Leeks, Shallots.
·536	Potatoes.
·537	Turnips, Swedes.
·539	Other Root Crops.
·54	Asparagus.
·545	Beans, Peas, Lentils.
·55	Cabbages, Sprouts.
·553	Cauliflowers.
·556	Celery.
·56	Cucumbers.

ECONOMIC BOTANY—continued.

673·563	Lettuce.
·566	Marrows.
·57	Mushrooms.
·575	Rhubarb.
·58	Spinach.
·585	Tomatoes.
·59	Other Vegetables.
·6	Fruits. Orchards.
·61	Fruit Drying. Dried Fruits, Raisins, Currants, Sultanas, &c.
·62	Apples.
·623	Apricots, Peaches, Nectarines.
·626	Bananas.
·63	Berries.
·631	Blackberries, Dew-berries, Loganberries.
·632	Cranberries.
·633	Currants.
·634	Gooseberries.
·635	Mulberries.
·636	Raspberries.
·637	Strawberries.
·639	Other Berries.
·64	Cherries.
·643	Citrus Fruits. Oranges, Lemons, Limes.
·645	Dates.
·647	Figs.
·65	Grapes. Vineyards. Currant vines.
·66	Mangoes.
·663	Melons, Pumpkins.
·665	Nuts.
·667	Cocoanuts.
·67	Olives.
·673	Pears.
·676	Pineapples.
·68	Plums, Damsons, Greengages.
·69	Other Fruits.
·7	Spices and Condiment Plants.
·71	Cloves.
·713	Mustard.
·716	Nutmeg.
·72	Pepper.
·723	Thyme.
·725	Vanilla.
·729	Other Spices.
·73	Basket-work and Mat-work Plants.
·733	Bamboo.
·735	Osier.
·74	Drug-plants, Medicinal Plants.
·75	Cocoa.

ECONOMIC BOTANY—continued.

673·76	Coffee. Chicory.
·763	Hops.
·766	Opium.
·77	Tea.
·78	Tobacco.
·79	Other Drug Plants.
·8	Fibre Plants.
·81	Cotton.
·811	Flax.
·813	Hemp.
·815	Jute.
·817	Sisal.
·819	Other Fibre Plants.
·82	Gums, Resins.
·825	Gutta-percha.
·83	Rubber.
·84	Oil-bearing Plants.
·85	Perfume Plants.
·855	Poisonous Plants.
·86	Tannin Plants.
·87	Starch Plants. Tapioca. Sago.
·88	Tinctorial Plants.
·89	Other Economic Plants.
·9	Horticulture. Gardening.
·903	Dictionaries.
	Greenhouses. *See* 580·27.
·91	Alpine Plants.
·92	Annual and Biennial Plants.
·93	Bulbs.
·94	Climbers.
·95	Ferns.
·96	Herbaceous Plants. Perennials.
·97	Lawns.
·975	Orchids.
·98	Roses.
·99	Shrubs, Trees, Hedges.
674	**Agricultural Diseases and Pests.**
·1	Diseases of Plants.
	Diseases of Forest Trees. *See* 581·8.
·11	Weeds.
·13	Effects of Injurious Atmospheric Conditions. Impurities in the Air, Frosts.
·15	Drought.
·17	Effects of Non-atmospheric Natural Phenomena. Inundations.
·19	Wounds. Mutilations. Reparative Processes.
·195	Diseases of Animals. Veterinary Medicine.
·2	Diseases due to Plants.
·25	Bacteria.

DISEASES OF PLANTS—continued.
674·3 Fungi.
·4 Injurious and useful Animals affecting Plants and Animals.
·403 Protozoa.
·405 Vermes.
·41 Insects. Economic Entomology.
·43 Orthoptera.
·45 Neuroptera.
·47 Hemiptera.
·49 Diptera.
·5 Lepidoptera.
·6 Coleoptera.
·65 Hymenoptera.
Galls. *See* 581·869.
·69 Arachinda.
·7 Birds.
·75 Mammals.
·79 Other Animals.
·8 Treatment of Diseases and Pests.
·81 Insecticides. Fungicides.
·83 Spraying. Dusting.
·85 Fumigation.
·9 Diseases of Special Crops.
[Arranged according to crops, 673, by adding the numbers after the decimal point to 674·9, *e.g.*, Diseases of the Cotton Plant, 674·981.]

675 Live Stock, including Domestic Animals.
·1 Principles of Breeding.
·2 Management and Health.
·25 Feeding.
·4 Special Animals.
·5 Horses. Asses. Mules.
·51 Cattle.
·52 Sheep. Goats. Angoras.
·525 Wool Production.
·53 Pigs.
·54 Poultry.
·55 Birds.
·56 Dogs.
·57 Cats.
·58 Rabbits. Hares. Other Rodents.
·6 Bees. Bee-keeping.
·7 Silkworms.
·9 Other Animals.

676 Dairy Practice.
·1 Milk and Cream.
·2 Butter.
·25 Margarine.
·3 Cheese.
Adulterations, Analysis. *See* 613·7.

677 Economics of Agriculture.

·1 Land Tenure and Valuation.
·2 Agricultural Labour.
·3 Finance. Accounts.

678 Agricultural Statistics.

[Arranged according to countries by placing the Topographical numbers, 990–999, with "99" omitted, in round brackets "( )" after 678, *e.g.*, Agricultural Statistics of Canada, 678 (42).]

679 Agriculture in Different Countries.

[Arranged according to Topographical numbers, 990–999, by omitting the "99" and adding the rest to 679, *e.g.*, Canada, 994·2—Agriculture in Canada, 679·42.]

680. MANUFACTURES.

680·1 Works on Manufactures published before 1800.
·15 Bibliography.
·2 Compendiums.
·21 Pocket Books.
·25 Popular Works.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching. Manual Training.
·8 Collected Works.
·9 History of Manufactures.
·95 Biography.

681 Metal Manufactures.

Metal Working Machinery. *See* 625·77.

·1 Forging.
·15 Blacksmithing.
·2 Welding.
·3 Foundry Work. Casting. Including Iron Founding.
·31 Cupola Furnace.
·32 Pattern Making.
·33 Sheet-metal Work. Galvanizing. Tinning. Tin-plate. Soldering.
·34 Punch and Die Work. Die-sinking.
Punching Machinery. *See* 625·7823.
·35 Wiremaking. Wire.
Wire Rope. *See* 687·85.
·36 Pipes and Tubes.

METAL MANUFACTURES—continued.

681·39 Metal Powder Making.
·4 Iron and Steel.
  Structural Iron and Steel. *See* 622·14.
·43 Cutlery.
·44 Hardware.
·45 Scales.
·46 Safes.
  Stoves and Kitchen Ranges. *See* 622·71.
·49 Miscellaneous Articles of Iron and Steel. Needles.
·5 Scientific Instrument Making.
·53 Locksmithing. Gunsmithing.
  Watches and Clocks. *See* 527·17.
·57 Articles made of Aluminium.
·6 ,, ,, ,, Copper. Coppersmithing. Copper Founding.
·63 ,, ,, ,, Zinc.
·65 ,, ,, ,, Lead.
·7 ,, ,, ,, Alloys.
·75 Brass and Bronze.
·77 Bells.
  Electrotyping. *See* 662·6.
  Electroplating. *See* 662·7.
·79 Colouring and Enamelling of Metals. Enamelled Ware. Lacquering and Japanning.
·8 Gold and Silver Work. Jewellery.
  Precious Stones. *See* 549·3.
·85 Articles made of Platinum.
·9 Other Metal Industries. Pens. Pins.

682 Wood Manufactures.

  Timber. *See* 581·77.
  Drying Kilns. *See* 581·773.
  Sawmills. *See* 581·772.
·1 Woodwork and Wood-working Machinery.
  Carpentry. *See* 622·63.
·2 Veneers.
·3 Furniture. Cabinet Making.
·4 Willow Ware. Basket Making. Bamboo Work.
·5 Carriage and Waggon Making.
·9 Musical Instrument Making.
·95 Organ Building.

683 Leather Industries.

  Tanning. *See* 647·91.
·3 Boot and Shoe Making.
·5 Harness, Saddle and Trunk Making.
  Furs. *See* 591·884.

684 Articles made of Bone, Ivory or Horn.

685 Articles made of Paper, Cardboard, &c.

Paper Manufacture. *See* 647·82.

·1 Parchment, Skins, Vellum.
·2 Papier-maché.
·3 Cellulose.
·4 Wood Pulp.
·5 Stationery.
·6 Bookbinding.
·9 Articles made of Celluloid.

686 Printing.

·1 Relief Printing.
·15 Woodcuts. Wood Engravings.
·2 Typography. Printing Machinery.
·25 Hand Presses.
·3 Power Machines.
·35 Linotype Machines.
·37 Typewriters.
·4 Half Tone Processes. Photomechanical Line Blocks, Swelled Gelatin Processes.
·5 Half Tone Three-colour Processes.
·6 Plane Surface Printing.
·65 Lithography.
·7 Photolithography. Collotype.
·8 Chromo-lithography.
·9 Intaglio Printing.
·93 Line Engraving, Etching, Mezzotint.
·95 Photogravure.

687 Textile Manufactures.

·1 Textile Design.
·2 Textile Machinery and Processes.
·23 Preparation and Spinning.
·25 Carding and Combing.
·3 Weaving and Finishing.
·31 Hand Looms.
·33 Power Looms.
·35 Mercerization.
·37 Water Proofing.
·39 Fire Proofing.

Textile Fibres. *See* 647·8.

·4 Cotton Manufactures.
·45 Thread Manufacture.
·5 Woollen and Worsted Manufactures.
·6 Silk Manufactures.
·7 Flax, Hemp and Jute Industries.
·71 Flax, Linen.
·73 Hemp.
·75 Jute.
·79 Other Fibres.

TEXTILE MANUFACTURES—continued.

687·8 Textile Fabrics.
·81 Carpets, Rugs, Floor Coverings.
·82 Tapestry.
·83 Lace.
·84 Cordage, Twine.
·85 Wire Rope.
·86 Canvas. Tent and Awning Making.
·9 Clothes Making.
·91 Sewing Machines.
·93 Gloves.
·95 Hats.

688 **India-rubber Industry.** Articles made of Rubber, Gutta-percha, &c. Balata. Vulcanite.

688·5 Flour Milling.

689 **Miscellaneous Minor Industries.**

·1 Toys.

690. NAVAL SCIENCE AND ENGINEERING.

690·1 Works on Naval Science published before 1800.
·15 Bibliography.
·2 Text Books.
·21 Manuals for Officers, &c.
·24 Pocket Books and Tables for Naval Architects.
·27 Pocket Books and Tables for Naval Engineers.
·28 Tables of Tonnage.
·3 Dictionaries and Encyclopædias.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Naval Education.
·8 Collected Works.
·9 History of Naval Science.
·95 Biography.

691 **Naval Architecture.**

·1 Measurement of Ships.
·2 Displacement and Buoyancy of Ships.
·3 Stability.
·4 Oscillations.
·5 Strains experienced by Ships.

692 **Ship Design and Construction.**

·1 Drawings. Design.
·13 Illustrations of Ships.

NAVAL SCIENCE AND ENGINEERING—continued.

692·16 Ship Models.
·2 Wooden Ships.
·25 Composite Ships.
·3 Steel and Iron Ships.
·35 Concrete Ships.
·4 Structural Arrangements in Ships.
·45 Water-tight Compartments.
·5 Heating and Ventilation of Ships.
·6 Uses of Electricity on Ships.
·63 Lighting, including other Methods.
·66 Searchlights.
·7 Ships for Special Purposes.
·71 Passenger Vessels.
·72 Freight Vessels.
·73 Colliers.
·74 Railway Ferries.
·75 Ferry-boats.
·76 Ice-breaking Vessels. Vessels for Polar Exploration.
·77 Oil Steamers. Tank Steamers.
·78 Lightships.
·79 River Steamers.
·8 Submarine Vessels.
·86 Small Craft.
·87 Yachts, Row Boats.
·88 Motor Boats, Electric Launches.
·89 Lighters, Barges, Canal Boats.
War Vessels. *See* 694·2.
·9 Ship Maintenance and Repair.
·91 Ship Yards.
·92 Ship Tests and Trials.
·93 Ship Maintenance and Repair.
·94 Fouling and Corrosion. Cleaning, Scraping, Painting.

693 Marine Engineering.

·1 Marine Engines.
·11 Drawings.
·2 Steam Engines.
·3 Steam Turbines.
·4 Gas Engines.
·5 Petrol and Oil Engines.
·6 Heavy Oil Engines. Diesel Engines.
·63 Motor-boat Engines.
·65 Auxiliary Engines. Donkey Engines.
·67 Vibration Phenomena.
·7 Marine Boilers.
·71 Drawings.
·75 Oil-fuel Furnaces.

MARINE ENGINEERING—continued.

693·8	Resistance and Propulsion of Ships.
·83	Paddle Wheels.
·85	Screw Propellers.
·9	Ship Details and Appliances.
·95	Steering Apparatus.
	Compasses. *See* 529·23.

694	**Naval Science.**
·1	Naval Strategy and Tactics. Manœuvres.
·2	War Vessels.
·21	Period of Sailing Vessels.
·23	Period of Steam Vessels.
·3	Period of Armoured Vessels.
·31	Battleships.
·32	Cruisers.
·33	Monitors.
·34	Destroyers. Torpedo Boats.
·35	Torpedoes. Mines.
·36	Submarines.
·37	Minor Craft. Dirigible Automatic Craft.
·39	Navies of different Nations.
·4	Naval Ordnance.
	Manufacture. *See* 695·31.
·41	Instruction Manuals.
·43	Gunnery.
	Rangefinders. *See* 695·43.
·5	Naval Signalling. Flags.
·51	Wireless Apparatus.
·53	Submarine Signalling.
·6	Naval Ports, Yards. Coaling Stations.
·7	Naval Hygiene and Medical Service.
·8	Naval Administration.
	Naval Aeronautics. *See* 629·71.

695. MILITARY SCIENCE AND ENGINEERING.

695·01	Works on Military Science published before 1800.
·015	Bibliography.
·02	Text Books.
·021	Soldiers' Manuals.
·03	Dictionaries and Encyclopædias.
·04	Essays, Lectures and Addresses.
·05	Journals.
·06	Transactions of Societies.
·065	Congresses.
·067	Exhibitions.
·07	Military Education.
·08	Collected Works.

MILITARY SCIENCE AND ENGINEERING—continued.

695·09 History of Military Science.
·095 Biography.

·1 Strategy. Tactics. Manœuvres. Mobilization.

·11 Infantry and Equipment.
·13 Musketry.

·15 Cavalry and Equipment.

·17 Artillery.

·2 Weapons, Arms and Armour.
·21 Swords, Bayonets.
·23 Arms for Throwing Projectiles.
·25 Catapults, Bows.
·27 Rifles, Muskets, Revolvers, Sporting Guns.

·3 Ordnance.
·31 Manufacture. Arsenals. Magazines.
·33 Gun Handbooks.
·4 Ballistics. Resistance of Projectiles.
·41 Instruments.
·42 Gunnery.
·43 Rangefinding.
·45 Optical.
·47 Acoustic.
·48 Ammunition. Projectiles. Bombs. Grenades. Noxious Gases.
·49 Tanks. Armoured Cars.

·5 Military Administration and Maintenance. Armies of Different Nations.

·6 Military Hygiene and Medical Service.
Veterinary Science. *See* 674·195.

·7 Military Engineering.
·71 Roads.
·72 Bridges. Pontoons.
·73 Tunnels.
·74 Railways.
·75 Dams. Canals.
·76 Field Engineering.
·77 Fortification.
·78 Military Surveying.
·79 Military Transport.

·8 Military Signalling.

·85 Hand Signalling. Heliograph, Semaphores.

·9 Military Uses of Electricity.
·93 Military Telegraphy and Telephony.
·95 Military Electric Lighting.
Searchlights. *See* 692·66.
Military Aeronautics. *See* 629·71.

980. GEOGRAPHY.

980·1 Works on Geography published before 1800.
·15 Bibliography.
·2 Text Books.
·23 Practical Text Books.
·24 Place Names.
·3 Dictionaries and Encyclopædias. Gazetteers.
·4 Essays, Lectures and Addresses.
·5 Journals.
·6 Transactions of Societies.
·65 Congresses.
·67 Exhibitions.
·7 Teaching of Geography.
·8 Collected Works.
·9 History of Geography.
·95 Biography.

Mathematical Geography. *See* 528·024.
Physical Geography. *See* 552.

981 Descriptive Geography.

Text Books. *See* 980·2.

·1 Ancient and Mediæval.
·2 Political.
·3 State Boundaries.
·4 Colonization.
·5 Commercial.
·6 Communications.

982 Atlases.

·1 Topographical Atlases.

[Arranged according to countries by placing the Topographical numbers, 990–999, with "99" omitted in round brackets, "( )" after 982·1.

·15 Classical Atlases.
·2 Physical Atlases.

[Arranged according to countries as 982·1.]

·6 Globes.
·7 Models. Relief Maps.
·9 Catalogues of Maps.

Cartography. *See* 528·8.

983 Travel and Exploration.

·1 Travellers' Manuals.
·2 Mountaineering.
·3 Voyages, mainly by Sea.
·5 Travels, mainly by Land.

Scientific Expeditions. *See* 508.

·9 Guide Books.

[Arranged according to Topographical numbers, 990–999, by omitting the "99" and adding the rest of the number to 983·9, *e.g.*, Japan, 992·3—Guide Books to Japan, 983·923.]

990 Topographical Divisions.

- ·05 Europe and Mediterranean.
  - ·1 Scandinavia.
    - ·11 Sweden.
    - ·12 Norway.
    - ·13 Denmark. Nord Slesvig.
    - ·14 Iceland.
    - ·15 Faeroes.
  - ·2 Russia.
    - ·205 Ural Mountains.
    - ·21 Finland.
    - ·22 Northern North Russia. Petrograd. (Archangel. Vologda. Konetz. Novgorod.)
    - ·23 Southern North Russia. Moscow.
    - ·24 Baltic States.
      - Esthonia. Livonia. Courland. Lithuania.
    - ·26 White Russia. (West Russia.)
    - ·27 Ukraine. (South-Western Russia, excluding Don Province. Galicia. Little Russia.)
    - ·275 Don Province. Tauridia.
    - ·28 Tartar Baskir Province. (East Russia.)
    - ·29 Caucasia. Kuban. Terek. Georgia.
  - Poland. (Polish Galicia.)
  - ·3 Germany.
    - ·31 Northern Germany.
      - ·312 Prussia.
      - ·32 Silesia.
      - ·321 Brandenburg. Berlin.
      - ·322 Pomerania.
      - ·323 Mecklenburg and Lübeck.
      - ·324 Prussian Saxony.
      - ·325 Anhalt.
    - ·33 Central Germany. Harz Mountains.
      - ·335 Saxony.
      - ·34 Thuringia.
        - ·341 Saxe-Weimar.
        - ·342 Saxe-Altenburg.
        - ·343 Saxe-Coburg-Gotha.
        - ·344 Saxe-Meiningen.
        - ·345 Schwartzburg.
        - ·346 Reuss.
      - ·35 Bavaria.
        - ·351 Upper Franconia.
        - ·352 Middle Franconia.
        - ·353 Lower Franconia.

TOPOGRAPHICAL DIVISIONS—continued.

990·354	Upper Palatinate.
·355	Lower Bavaria.
·356	Upper Bavaria.
·357	Swabia.
·36	Southern Germany.
·361	Hesse Darmstadt.
·362	Rhenish Prussia.
·363	Rhenish Bavaria.
·37	Baden.
·373	Wurtemberg.
·375	Black Forest.
	R. Danube as a whole. *See* 991·545.
·376	Hohenzollern.
·38	North-West Germany.
·381	Holstein and German Schleswig. Hamburg.
·385	Oldenburg and Bremen.
·39	Hanover.
·393	Brunswick.
·394	Lippe. Schaumberg-Lippe.
·395	Westphalia.
·396	Waldeck.
·397	Hesse-Nassau.
·4	Holland, Belgium, and Luxemburg.
·41	Holland.
·43	Belgium.
·45	Luxemburg.
·5	British Isles.
·55	British Empire.
·6	England and Wales.
·61	Middlesex. London. River Thames.
·62	South-Eastern Counties.
·621	Surrey.
·622	Kent.
·623	Sussex.
·624	Hampshire.
·625	Isle of Wight.
·626	Berkshire.
·63	South-Western Counties.
·631	Wiltshire.
·632	Dorsetshire.
·633	Devonshire.
·634	Cornwall. Scilly Islands.
·635	Somersetshire.
·64	West Midland Counties.
·641	Gloucestershire.
·642	Monmouthshire.
·643	Herefordshire.
·644	Shropshire.
·645	Staffordshire.

TOPOGRAPHICAL DIVISIONS—continued.

990·646	Worcestershire.
·647	Warwickshire.
·65	North and South Midland Counties.
·651	Derbyshire.
·652	Nottinghamshire.
·653	Lincolnshire.
·654	Leicestershire. Rutland.
·655	Northamptonshire.
·656	Huntingdonshire. Bedfordshire.
·657	Oxfordshire. Buckinghamshire.
·658	Hertfordshire.
·659	Cambridgeshire.
·66	Eastern Counties.
·661	Norfolk.
·662	Suffolk.
·663	Essex.
·67	North-Western Counties and Yorkshire.
·671	Cheshire.
·672	Lancashire.
·674	Yorkshire.
·68	Northern Counties.
·681	Durham.
·682	Northumberland.
·685	Cumberland.
·688	Westmorland.
·689	Isle of Man.
·69	Wales.
·691	Anglesey.
·692	Carnarvonshire. Merionethshire.
·693	Denbighshire. Flintshire.
·694	Montgomeryshire.
·695	Cardiganshire.
·696	Radnorshire. Brecknockshire.
·697	Glamorganshire.
·698	Carmarthenshire.
·699	Pembrokeshire.
·7	Scotland.
·71	North Scotland.
·711	Shetlands.
·712	Orkneys.
·713	Caithness.
·714	Sutherland.
·715	Cromarty.
·716	Ross.
·717	Hebrides.
·72	North Central Scotland.
·721	Inverness.
·722	Nairn.

TOPOGRAPHICAL DIVISIONS—continued.

990·723	Elgin (Moray).
·724	Banff.
·725	Aberdeen.
·726	Kincardine.
·73	South-Central Scotland.
·731	Forfar.
·732	Perth.
·733	Fife.
·734	Kinross.
·735	Clackmannan.
·736	Stirling.
·737	Dumbarton.
·738	Argyll.
·739	Bute. Arran.
·74	South Scotland.
·741	Renfrew.
·742	Ayr.
·743	Lanark.
·744	Linlithgow (West Lothian). Edinburgh (Mid Lothian).
·745	Haddington (East Lothian). Berwick.
·746	Peebles. Selkirk.
·747	Roxburgh.
·748	Dumfries.
·749	Kirkcudbright. Wigtown.
·75	Ireland.
·76	Ulster.
·761	Antrim.
·762	Londonderry.
·763	Donegal.
·764	Tyrone.
·765	Down.
·766	Armagh.
·767	Monaghan.
·768	Fermanagh.
·769	Cavan.
·77	Connaught.
·771	Leitrim.
·772	Sligo.
·773	Mayo.
·774	Galway.
·775	Roscommon.
·78	Leinster.
·781	Longford. Westmeath.
·782	Meath. Louth.
·783	Dublin.
·784	Wicklow.
·785	Kildare.

TOPOGRAPHICAL DIVISIONS—continued.

990·786	King's County.
·787	Queen's County.
·788	Carlow. Wexford.
·789	Kilkenny.
·79	Munster.
·791	Waterford.
·792	Tipperary.
·793	Clare.
·794	Limerick.
·795	Cork.
·796	Kerry.
·8	France and Corsica.
·81	Brittany. Maine. Anjou.
·811	Finistère.
·812	Côtes-du-Nord.
·813	Morbihan.
·814	Loire-Inférieure.
·815	Ille-et-Vilaine.
·816	(Maine.) Mayenne.
·817	Sarthe.
·819	(Anjou.) Maine-et-Loire.
·82	Normandy. Picardy.
·821	Manche.
·822	Calvados.
·823	Orne.
·824	Eure.
·825	Seine-Inférieure.
·826	(Picardy.) Somme.
·827	Artois. Pas-de-Calais.
·828	Nord.
·83	Champagne. Île-de-France. Lorraine.
·831	Ardennes.
·832	Marne.
·833	Aube. Haute-Marne.
·834	(Île-de-France.) Aisne.
·835	Oise.
·836	Seine-et-Oise. Paris.
·837	Seine-et-Marne.
·838	(Lorraine.) Meuse. Moselle.
·8385	(Alsace.) Bas-Rhin. Haut-Rhin.
·839	Meurthe. Vosges.
·84	Burgundy. Franche Comté. Savoy.
·841	Yonne.
·842	Côte-d'Or.
·843	Saône-et-Loire.
·844	Ain.
·845	(Franche Comté.) Haute-Saône. Belfort.

TOPOGRAPHICAL DIVISIONS—continued.

990·846		Doubs.
·847		Jura.
·848		(Savoy.) Savoie.
·849		Haute-Savoie.
·85	Orleans, &c. Auvergne.	
·851		Eure-et-Loire.
·852		Loiret.
·853		Loir-et-Cher.
·854		(Touraine.) Indre-et-Loire.
·855		(Berry.) Indre. Cher.
·856		(Nivernais.) Nièvre.
·857		(Bourbonnais.) Allier.
·858		(Lyonnais.) Loire. Rhône.
·859		(Auvergne.) Puy-de-Dôme. Cantal.
·86	Poitou. Limousin.	
·861		Vendée.
·862		Deux Sèvres.
·863		Vienne.
·864		Charente-Inférieure.
·865		Charente.
·866		(Limousin.) Haute-Vienne.
·867		Corrèze.
·868		Manche. Creuse.
·87	Guienne. Gascony. Pyrenees.	
·871		Gironde.
·872		Dordogne.
·873		Lot.
·874		Aveyron.
·875		Tarn-et-Garonne.
·876		Lot-et-Garonne.
·877		(Gascony.) Landes. Gers.
·878		Hautes-Pyrénées.
·879		(Bearn.) Basses-Pyrénées.
·88	Languedoc.	
·881		Haute-Loire. Lozère.
·882		Ardèche.
·883		Gard.
·884		Hérault.
·885		Tarn.
·886		Haute-Garonne.
·887		Aude.
·888		(Foix.) Ariège.
·889		Pyrénées Orientales.
·89	Provence. Dauphiny.	
·891		Bouches-du-Rhône.
·892		Vaucluse.
·893		Var.
·894		Alpes-Maritimes.
·895		Basses-Alpes.

TOPOGRAPHICAL DIVISIONS—continued.

990·897	Hautes-Alpes.
·898	Drôme.
·899	Isère.
·8995	Corsica.
·9	Spain and Portugal.
·91	Galicia. Asturias.
·92	Leon. Estramadura.
·93	Old Castile.
·94	New Castile.
·95	Aragon.
·96	Basque Provinces.
·97	Catalonia. Valentia. Murcia.
·98	Andalusia.
·99	Portugal.
991	Italy. Sicily. Sardinia.
·11	Piedmont and Liguria.
·12	Lombardy.
·13	Venetia. Trentino. Istria.
·14	Emilia.
·15	Tuscany.
·16	Marches. Umbria.
·17	Campania. Rome. Abruzzi e Molise.
·175	Apulia. Basilicata. Calabria.
·18	Sicily.
·19	Sardinia.
·2	Switzerland.
·25	The Alps.
·3	Austria. Hungary. Czecho-Slovakia.
·305	Carpathian Mountains.
·31	Austria.
·32	Lower Austria. Vienna.
·33	Upper Austria.
·335	Styria.
·34	Carinthia.
·345	Salzburg.
·35	Tyrol and Vorarlberg.
·36	Czechoslovakia.
·37	Bohemia.
·38	Moravia.
·39	Silesia.
·395	Slovakia. Ruthenia.
·4	Hungary.
·41	Balkan Peninsula.
·42	Yugoslavia.
·43	Slavonia.
·44	Croatia. Riéka (Fiume).
·45	(Carniola.) Slovenia.
·455	Dalmatia.
·46	Bosnia.
·47	Herzegovina.

TOPOGRAPHICAL DIVISIONS—continued.

991·48	Serbia.
·49	Montenegro.
·495	Albania.
·5	Rumania.
·51	Transylvania.
·515	Bukovina.
·52	Bessarabia.
·53	Moldavia.
·54	Wallachia.
·545	River Danube as a whole.
·55	Bulgaria.
·58	Greece.
·59	Turkey in Europe. Constantinople. Dardanelles. Sea of Marmora.
·6	Mediterranean and Islands (excluding Sicily, Sardinia, and Corsica). Adriatic Sea.
·605	Gibraltar.
·61	Balearic Islands.
·62	Majorca.
·63	Minorca.
·635	Iviza.
·64	Elba.
·65	Lipari Islands.
·66	Malta.
·67	Ionian Islands.
·7	Grecian Archipelago. Levant.
·71	Northern Islands : Thasos, Lemnos, &c.
·72	Cyclades.
·75	Samos.
·77	Crete.
·78	Cyprus.
·79	Other Islands.
·8	Black Sea and Sea of Azov.
·9	Baltic Sea and Islands.
·91	Bornholm.
·92	Oeland.
·93	Gothland.
·94	Åland Archipelago.
·95	Dagö.
·96	Oesel.
·99	Other Islands.
992	Asia and Malay Archipelago.
·1	Asiatic Russia.
·13	Siberia.
·17	West Turkestan. Pamirs.
·2	China. Tibet. Corea.
·21	North-East China.
·211	Chihli.
·212	Shantung.

TOPOGRAPHICAL DIVISIONS—continued.

992·213	Shansi.
·214	Honan.
·215	Kiangsu.
·216	Anhui.
·22	South-East China.
·221	Chêkiang.
·222	Fukien.
·223	Kiangsi
·224	Hupeh.
·225	Hunan.
·23	North-West China.
·231	Shensi.
·232	Kansu.
·233	Szechwan.
·24	South-West China.
·241	Kwantung.
·2415	Hongkong.
·242	Kweichow.
·243	Kwangsi.
·244	Yünnan.
·25	Manchuria.
·26	Mongolia.
·27	(Korea.) Chosen.
·28	Tibet.
·29	East Turkestan. Tian Shan Mountains.
·3	Japan.
·31	Chishima or Kurile Islands.
·35	(Formosa.) Taiwan.
·36	French Indo-China.
·365	Anam. Tonking.
·37	Cochin-China.
·38	Cambodia.
·39	Siam.
·4	India. Burma. Ceylon.
·41	Kashmir and Chitral.
·415	Himalayas.
·42	Punjab.
·43	Assam, Bhutan, Sikkim and Nepál.
·431	Assam.
·432	Bhutan.
·435	Sikkim.
·437	Nepál.
·44	Bengal. North-West Frontier Province and Oude.
·441	Bengal.
·443	North-West Frontier Province.
·445	United Provinces. Agra. Oude.
·45	Central India. Central Provinces. Rajputana. Hyderabad.
·451	Central India.

TOPOGRAPHICAL DIVISIONS—continued.

992·452	Central Provinces. Berar.
·453	Rajputana.
·455	Hyderabad.
·46	Madras, Mysore, Coorg and Travancore.
·461	Madras.
·463	Mysore.
·465	Coorg.
·467	Travancore.
·469	Pondicherry.
·47	Bombay. Kathiawar. Kach. Sind.
·471	Bombay.
·473	Kathiawar.
·475	Cutch.
·477	Sind.
·479	Goa.
·48	Burma.
·49	Ceylon.
·5	Malay Peninsula, from the Isthmus of Kra, Malay Archipelago, Philippines and South China Sea.
·51	Lower Siam.
·52	Straits Settlements and Malay States.
·523	Straits Settlements.
·525	Federated Malay States.
·527	Malay States, Unfederated.
·53	Borneo.
·533	British North Borneo.
·535	Brunei.
·54	Sarawak.
·55	Dutch Borneo.
·56	Dutch East Indies.
·57	Java, Madura, Bali, Lombok, Timor Archipelago and Kei Islands.
·573	Sumatra, Banka, Billiton, Rieu-Lengga Archipelago.
·575	Celebes.
·577	Molucca Islands. Halmahera, Ceram.
·58	Philippines.
·59	South China Sea.
·6	Persia.
·65	Afghanistan.
·67	Baluchistan.
·7	Asiatic Turkey, Mesopotamia and Syria.
·71	Anatolia. Armenia. Kurdistan.
·75	Mesopotamia.
·77	Syria, Palestine, Dead Sea.
·79	Arabia. Hejaz.
·8	Caspian Sea. Sea of Aral.
·9	Persian Gulf.

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·13	Morocco.
·15	Algeria.
·17	Tunis.
·19	Tripoli.
·2	North East Africa. Egypt and Nile Valley to Lat. 5° N. with Abyssinia and the African Coast of the Red Sea.
·21	Egypt proper.
·22	Libyan Desert.
·23	Egyptian Sudan.
·24	Bahr-el-Ghazal.
·27	Abyssinia. Ethiopia.
·29	Eritrea.
·3	Sahara and Central Sudan. Wadai.
·4	West Africa from the Rio Oro to the Congo, including French Sudan and Upper Niger.
·41	Rio Oro. Semmur.
·413	Mauritania.
·415	Senegal.
·417	Upper Senegal-Niger (French Sudan), Upper Volta and Military Territory of the Niger.
·42	Gambia.
·425	Portuguese Guinea.
·43	French Guinea.
·435	Sierra Leone.
·44	Liberia.
·445	Ivory Coast.
·45	Gold Coast and Ashanti.
·455	Togoland.
·46	Dahomey.
·47	Nigeria.
·473	Northern Nigeria.
·475	Southern Nigeria.
·477	Lagos.
·48	Cameroons.
·49	French Congo.
·5	Congo State and Angola. Congo River System as a whole.
·53	Belgian Congo.
·55	Angola. (Portuguese West Africa).
·6	East Africa, from Lat. 5° N. to the Rovuma. Socotra.
·61	French Somaliland. Obock.
·63	Somaliland Protectorate. Socotra.
·64	Italian Somaliland.
·65	British East Africa. Kenya Protectorate. Uganda Protectorate. Zanzibar.

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993·66	Tanganyika Territory (German East Africa).
·67	Lakes Albert Nyanza, Victoria Nyanza, Tanganyika, Nyasa.
·7	South Africa, South of the Rovuma.
·71	Mozambique (Portuguese East Africa).
·72	Nyasaland Protectorate (British Central Africa).
·73	Rhodesia.
·733	Northern Rhodesia.
·736	Southern Rhodesia (Matabeleland, Mashonaland). R. Zambesi.
·74	Bechuanaland Protectorate.
·743	Basutoland.
·746	Swaziland.
·75	Union of South Africa.
·76	Transvaal.
·765	Orange River Colony.
·77	Natal, including Zululand.
·78	Cape Colony.
·79	South-West Africa Protectorate. Damaraland. Great Namqualand (German South-West Africa).
·8	Madagascar and Comoro Islands.
·9	Red Sea and Islands.
·91	Perim.
994	North America.
·05	Discovery of North America.
·1	Alaska, Behring Sea and Aleutian Islands.
·3	Dominion of Canada.
·31	British Columbia and Vancouver Island. Queen Charlotte's Islands.
·32	Yukon.
·33	North-West Territories.
·34	Alberta.
·35	Saskatchewan.
·42	Manitoba.
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·44	Quebec.
·45	New Brunswick and Prince Edward Island.
·46	Nova Scotia.
·47	Newfoundland and Labrador.
·48	Labrador.
·49	Newfoundland.
·5	The Laurentian Lakes.
·6	United States.
·7	North Atlantic Division (New England).
·71	Maine.
·715	New Hampshire.

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·725	Massachusetts.
·727	Rhode Island.
·73	Connecticut.
·735	New York.
·74	New Jersey.
·745	Pennsylvania.
·75	South Atlantic Division.
·755	Delaware.
·76	Maryland.
·765	District of Columbia.
·77	Virginia.
·775	West Virginia.
·78	North Carolina.
·785	South Carolina.
·79	Georgia.
·795	Florida.
·8	North Central Division.
·81	Ohio.
·82	Indiana.
·83	Illinois.
·84	Michigan.
·85	Wisconsin.
·86	Minnesota.
·87	Iowa.
·88	Missouri.
·89	North Dakota.
·893	South Dakota.
·895	Nebraska.
·897	Kansas.
·9	South Central Division. Gulf States.
·91	Kentucky.
·915	Tennessee.
·92	Alabama.
·925	Mississippi.
·93	Louisiana.
·935	Texas.
·94	Oklahoma.
·945	Arkansas.
·95	Western Division.
·955	Montana.
·96	Wyoming. Yellowstone National Park.
·965	Colorado.
·97	New Mexico.
·973	Arizona.
·975	Utah.
·977	Nevada.
·98	Idaho.

TOPOGRAPHICAL DIVISIONS—continued.

994·985	Washington.
·99	Oregon.
·995	California.
·999	Mississippi River System as a whole.
995	Central and South America and West Indies.
·1	Mexico.
·11	Free Zone and Northern States. Tamaulipas, Nuevo Leon, Cohahuila, Chihuahua, Sonora, Durango.
·12	Lower California and Islands.
·13	Central Pacific States. Sinaloa, Jalisco, Colima, Michoacan.
·14	Interior States. Zacatecas, San Luis Potosi, Aguascalientes, Guanajuato, Queretaro, Hidalgo, Puebla, Tlascala, Morelos.
·15	Mexico and Federal District.
·16	Southern Gulf States. Vera Cruz, Tabasco, Campeche, Yucatan.
·17	Southern Pacific States. Guerrero, Oaxaca, Isthmus of Tehuantepec, Chiapas.
·2	Central America.
·21	Guatemala.
·22	Honduras.
·23	British Honduras.
·24	Salvador.
·25	Nicaragua.
·26	Costa Rica.
·27	Panama.
·3	West Indies. Caribbean Sea. Gulf of Mexico.
·31	Cuba.
·32	Jamaica.
·33	Hayti and Dominican Republic.
·34	Porto Rico.
·35	Bahamas.
·36	Leeward Islands.
·365	Windward Islands. Barbados.
·37	Bermudas.
·38	Caribbean Sea.
·39	Gulf of Mexico.
·4	Guiana. Venezuela. Trinidad.
·41	French Guiana.
·42	Dutch Guiana.
·43	British Guiana.
·44	Venezuela.
·45	Trinidad.
·5	Colombia.
·55	Ecuador.

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·6	Bolivia.
·7	Brazil and River Amazon System as a whole.
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·81	Patagonia.
·83	Paraguay.
·85	Uruguay.
·87	Chili.
·88	Tierra del Fuego and Islands.
·89	Falkland Islands.
·9	The Andes.
996	Australasia.
·1	New Guinea, with Waigoe, Misool and Aroo Islands. Bismarck Archipelago and Solomon Islands.
·13	Papua (British New Guinea).
·14	Dutch New Guinea.
·15	Kaiser Wilhelm's Land. (German New Guinea.)
·21	Bismarck Archipelago.
·23	Solomon Islands.
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·5	New South Wales.
·6	Victoria.
·7	South Australia.
·73	West Australia.
·75	Tasmania.
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·9	New Caledonia, New Hebrides and Loyalty Islands.
·91	New Caledonia.
·92	New Hebrides.
·93	Loyalty Islands.
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·2	Islands North of Europe.
·3	Nova Zembla.
·4	Spitsbergen.
·6	Greenland.
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·88	St. Thomas and Prince.
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·93	Ascension.
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·96	Tristan d'Acunha.
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·13	Laccadives.
·15	Maldives.
·16	Andaman Islands.
·17	Nicobar Islands.
·2	Ocean and Islands South of Equator, except Madagascar and Comoro Islands.
·21	Seychelles.
·22	Mauritius and Rodriquez.
·25	Réunion.
·28	St. Paul. New Amsterdam.
·3	Pacific Ocean.
·4	North Pacific Ocean North of Equator.
·5	Hawaii (Sandwich Islands).
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·54	Marianne or Ladrone Islands.
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·82	Samoa.
·83	Ellice Group.
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·85	Gilbert Islands.
·86	Union Islands.
·87	Manahiki Islands.
·88	Cook Islands.
·89	Marquesas, Society Islands and other French Possessions except Loyalty Islands.
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